



# Energia Sierra Juarez U.S. Transmission Line Project

## Final Environmental Impact Statement

### Volume 2 - Appendices

**May 2012**

**U.S. Department of Energy  
Office of Electricity Delivery and Energy Reliability  
Washington, DC 20585**

**Cooperating Agency – County of San Diego  
San Diego, CA**







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- B.8 Short Form Fire Protection Plan (Hunt Research Corporation 2009)
- B.9 County of San Diego Fire Authority letter (Paul Dawson, Fire Marshal) to County of San Diego Department of Planning and Land Use, indicating acceptance of the September 10, 2009 Fire Protection Plan (November 25, 2009)
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- B.11 County of San Diego Department of Planning and Land Use Memorandum from Jim Bennett, Groundwater Geologist, to Patrick Brown, Project Planner, regarding groundwater supply (May 4, 2010)
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## **Appendix A Scoping Report**



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(September 2009)

Appendix A.2 Notice of Intent to Prepare an Environmental Impact Statement  
(February 25, 2009)



Appendix A.1 Energia Sierra Juarez Transmission Line Project Scoping Report  
(September 2009)









# Energia Sierra Juarez Transmission Line Project

## Scoping Report

**September 2009**

**U.S. Department of Energy  
Office of Electricity Delivery and Energy Reliability  
Washington, DC 20585**



**Energia Sierra Juarez U.S. Transmission, LLC**  
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## **1. Introduction**

On December 18, 2007, Baja Wind U.S. Transmission, LLC (now, Energia Sierra Juarez U.S. Transmission, LLC (ESJ)), a subsidiary of Sempra Generation (Sempra), applied to the U.S. Department of Energy (DOE) for a Presidential permit in accordance with Executive Order (EO) 10485, as amended by EO 12038, and 10 CFR §205.320 *et seq* (2000).<sup>1</sup> The Presidential permit (OE Docket Number PP-334), if issued, would authorize ESJ to construct, operate, maintain, and connect the U.S. portion of the ESJ project, which consists of an electric transmission line that would cross the international border between the U.S. and Mexico, near the town of Jacumba, California. A project overview is provided below, and additional project details are provided in ESJ's December 18, 2007, application letter to DOE, as amended on March 19, 2008, and August 25, 2008. All of these documents are available on the ESJ project Web site at <http://ESJProjectEIS.org>, and on the DOE Web site at [http://www.oe.energy.gov/permits\\_pending.htm](http://www.oe.energy.gov/permits_pending.htm) (see PP-334).

For the purposes of this Scoping Report and the EIS, the term “ESJ U.S. Transmission Line Project” refers to all ESJ project transmission line activities within the U.S., and the term “ESJ Wind Project” refers to all ESJ project activities within Mexico.<sup>2</sup>

DOE initially determined that the appropriate level of environmental review under the National Environmental Policy Act of 1969 (NEPA) for granting the requested Presidential permit was an Environmental Assessment (EA). Accordingly, on August 4, 2008, DOE published in the *Federal Register* its *Notice of Intent to Prepare an Environmental Assessment and to Conduct Public Scoping Meetings; Baja Wind U.S. Transmission, LLC*. (73 FR 45218). The Notice of Intent (NOI) explained that DOE would be assessing potential environmental impacts and issues. The NOI was sent to interested parties including federal, state and local officials; agency representatives; tribes; conservation organizations; local libraries and newspapers; and local stakeholder organizations and individuals in the vicinity of the proposed transmission line. Issuance of the NOI commenced a 30-day public comment period that ended on September 3, 2008. The NOI also stated that, “[if] at any time during preparation of the EA DOE

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<sup>1</sup> According to Sempra's August 28, 2009, letter to DOE (available on the ESJ project Web site), in its initial application, Sempra made reference to Baja Wind, S. de R.L. de C.V. (Baja Wind), a subsidiary of Sempra Energy Mexico, as the entity undertaking the development in Mexico of the La Rumorosa Wind Energy Project. Baja Wind, S. de R.L. de C.V., was renamed Energia Sierra Juarez S. de R.L. de C.V. (ESJ Wind) to more accurately reflect the location of the Project. Sempra Energy no longer refers to the project as La Rumorosa Wind or any such derivatives and instead uses the term Energia Sierra Juarez, ESJ, or ESJ Wind. Energia Sierra Juarez S. de R.L. de C.V. remains a subsidiary of Sempra Energy Mexico.

<sup>2</sup> The term “transmission” is used throughout this document for purposes of clarity. It is understood that, in accordance with Federal Energy Regulatory Commission (FERC) terminology, the proposed transmission line will be a generation tie-line (“Gen-Tie”). As such, the transmission line, if approved and constructed, will not be required to provide open access transmission capability, as defined in applicable FERC regulations.



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determines that an Environmental Impact Statement (EIS) rather than an EA is needed, DOE will issue a Notice of Intent to prepare an EIS in the Federal Register. In that case, this scoping process will serve as the scoping process that normally would follow a Notice of Intent to prepare an EIS. Accordingly, DOE will consider any comments on the scope of the EA received during this scoping process in preparing such an EIS.”

DOE conducted two scoping meetings in San Diego County, California, in the town of Jacumba on August 26, 2008, during the public comment period on the NOI. The meetings provided the public with the opportunity to learn more about the proposed project and to provide comments on potential environmental issues associated with the project. A total of 18 people spoke at the meetings, and their comments were transcribed by a court reporter. (Transcripts of the scoping meetings are posted on the aforementioned ESJ project Web site and on the DOE Web site.) In addition, DOE received scoping comments in the form of eight written letters from private citizens, government agencies, and non-governmental organizations. All of these comments are available on the ESJ project Web site.

Several issues and concerns were identified during scoping, including: (1) visual impacts, (2) avian mortality, (3) impacts on protected, threatened, endangered, or sensitive species of animals or plants, or their critical habitats, (4) impacts on cultural or historic resources, (6) impacts on human health and safety with particular focus on wildfire hazards, (6) impacts on air, soil, and water, (7) impacts on land use, (8) impacts of seismic activity, and (9) impacts from development of wind generation. There were also several expressions of concern that an EA was not adequate, and that an EIS should be prepared.

Based on these comments and the potential for public controversy, DOE determined an EIS to be the proper NEPA compliance document. Accordingly, on February 25, 2009, DOE issued in the Federal Register its *Notice of Intent to Prepare an Environmental Impact Statement; Energia Sierra Juarez U.S. Transmission, LLC* (74 FR 8517). Similar to the first NOI, the NOI was sent to interested parties including federal, state and local officials; agency representatives; tribes; conservation organizations; local libraries and newspapers; and local stakeholder organizations and individuals in the vicinity of the proposed project. The NOI did not announce the opening of an additional scoping period, but it did indicate that any additional comments received by March 27, 2009, would be considered by DOE in defining the scope of the EIS, and that comments received or postmarked after that date would be considered to the extent practicable. In response to the February 25, 2009, NOI, DOE received seven written letters or emails from private citizens, government agencies, and non-governmental organizations, including one letter from a Native American Tribe. All comments received in response to the two NOIs are available on the ESJ project Web site.



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On June 29, 2009, DOE received a letter from the Campo Band of the Kumeyaay Nation requesting a consultation meeting between the Campo Band and DOE on this project to discuss cultural resources and historic preservation activities. A member of the EIS preparation team met with the Campo Band on September 16, 2009, to discuss the project and provide for further coordination during the EIS preparation.

Table 1 summarizes the major issues raised during the overall scoping process and indicates which sections of DOE's EIS will address these concerns as presently envisioned. DOE's Draft EIS will also contain a section that summarizes the comments received during scoping and how they are addressed. Table 2 provides a list of the commenters. A more detailed list of comments received during scoping is included in the Appendix.

## **2. Project Chronology to Date**

The following timeline summarizes the scoping process events described above:

December 18, 2007	DOE received Baja Wind (now ESJ) project application
March 19, 2008	DOE received amended Baja Wind (now ESJ) project application, including additional information on the 230-kilovolt (kV) optional transmission line design
August 4, 2008	DOE issued <u>Federal Register</u> NOI to Prepare an EA
August 25, 2008	Second letter amendment to the Baja Wind project application to change the project name from Baja Wind U.S. Transmission, LLC, to Energia Sierra Juarez U.S. Transmission, LLC (ESJ)
August 26, 2008	Public scoping meetings in Jacumba, California
September 3, 2008	Scoping period ended
February 25, 2009	DOE issued <u>Federal Register</u> NOI to Prepare an EIS
March 27, 2009	End of period to submit additional comments on the scope of the EIS

## **3. Project Overview**

The ESJ project is described in the December 18, 2007, application letter to DOE as amended by additional correspondence on March 19, 2008, and August 25, 2008. All of these documents are available on the ESJ project Web site at <http://ESJProjectEIS.org> and on the DOE Web site at



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[http://www.oe.energy.gov/permits\\_pending.htm](http://www.oe.energy.gov/permits_pending.htm); see PP-334.

According to ESJ's application and subsequent amendments, either a double-circuit 230-kilovolt (kV) or a single-circuit 500-kV electric transmission line would interconnect up to 1250 megawatts (MW) of energy from renewable energy generators to be located in the general vicinity of La Rumorosa, Northern Baja California, Mexico (Ejido Jacume), with the Imperial Valley-Miguel segment of the Southwest PowerLink (SWPL)<sup>3</sup> 500-kV transmission line. The proposed transmission line would have a total length of approximately 1.65 miles (including both the U.S. and Mexican portions of the line). The proposed line would be constructed on lattice towers or steel monopoles, extending south from the point of interconnection with SWPL for about 0.65 miles to the U.S.-Mexico international border. From the international border, the proposed line would continue south for approximately one more mile to its first point of interconnection inside Mexico. If the interconnecting line is at 230 kV, the 230/500 kV transformation would occur at a new substation that would be built in the U.S. by San Diego Gas and Electric Company (SDG&E) as part of its East County (ECO) Substation project. If the interconnecting line is at 500 kV, a substation would also be required in Mexico.

The proposed action considered in this EIS is the issuance of a Presidential permit by DOE that would authorize the construction, operation, maintenance, and connection of that portion of the proposed transmission line that would be located in the U.S. (i.e., the ESJ U.S. Transmission Line project, approximately 0.65 miles in length). In addition, the EIS considers potential impacts within the U.S. from connected transmission facilities in Mexico and from the associated renewable generation project in Mexico (the ESJ Wind project) (e.g., visual impacts in the U.S. from transmission lines and wind turbine facilities in Mexico or dust from construction in Mexico entering the U.S.). The ESJ U.S. Transmission Line project would include approximately four or five 150-foot tall support structures, either monopole towers or steel lattice towers similar to the existing 500-kV SWPL structures. Towers would be spaced approximately 1,500 feet apart.

At the interconnection point with the SWPL, a loop-in substation (East County (ECO) Substation) would be constructed, owned, operated, and maintained by SDG&E, a public utility. The ECO Substation would occupy approximately 80 acres between the ESJ U.S. Transmission Line project transmission line and Old Highway 80, in close proximity to the existing SWPL. The specific design, location, and acreage requirement for the ECO Substation are expected to be determined as a result of a decision process between SDG&E and the California Public Utilities Commission (CPUC). SDG&E states that it

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<sup>3</sup> "San Diego Gas & Electric's (SDG&E) single 500 kV interconnection to the grid is the Southwest PowerLink (SWPL), a 500 kV transmission line connecting the Palo Verde Nuclear Generating Station in Arizona and SDG&E's Miguel Substation in California. ... The SWPL is owned jointly by SDG&E, Arizona Public Service, and the Imperial Irrigation District." ([http://www.sdge.com/sunrisepowerlink/info/PEA/Chapter\\_1/Chapter1\\_executive\\_summary.pdf](http://www.sdge.com/sunrisepowerlink/info/PEA/Chapter_1/Chapter1_executive_summary.pdf))



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needs to build the ECO Substation for purposes unrelated to the ESJ U.S. Transmission project, but the ESJ transmission project would require the addition of adequate infrastructure to the substation facility. Accordingly, the construction of the ECO Substation is considered to be a connected action for the purpose of this EIS.

The ESJ Wind project in Mexico would be constructed in phases. A maximum of 52 wind turbines would be constructed in Phase I, depending on the selected manufacturer and specific model, resulting in up to 130 MW of power (assuming 2.5 MW per turbine). Phase I would be constructed on the furthest-north portion of the land leased by ESJ (Ejido Jacume), north of the town of La Rumorosa, Mexico. Figure 1 depicts the general location of the project in eastern San Diego County and Baja California. Figure 2 provides a more detailed map of Phase I of the ESJ Wind project and proposed project locations. The wind turbine locations shown on Figure 2 are preliminary and subject to refinement based on ongoing siting studies. As shown on Figure 2, the wind turbines nearest to the U.S. would be located approximately 0.7 miles south of the U.S. border. Figure 3 provides additional details of the ESJ U.S. Transmission Line project components that are proposed to be constructed in the U.S.

Subsequent expansion of the ESJ Wind project in Mexico would consist of additional phases of wind generation, up to a maximum build-out of 1250 MW<sup>4</sup>. The timing and location for installation of subsequent phases have not been determined, but current leaseholds would place the location of those subsequent phases south of the town of La Rumorosa. The location and scale of subsequent phase development, to the extent known, is considered in the EIS to the degree that such development could result in effects in the U.S.

#### **4. Scoping Comments**

The complete collection of scoping comments, including written letters and meeting transcripts, are available on the aforementioned ESJ project Web site. A summary of the comments is provided in this report in Tables 1 and 2 below. Table 1 provides a summary of the issues raised during the scoping process, arranged by the section heading which will address each issue in the DOE's EIS. Table 2 lists the individual commenters and date of each comment. A more detailed list of the comments received is included in the Appendix, arranged by commenter.

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<sup>4</sup> According to Sempra's August 28, 2009, letter to DOE (available on the project Web site), "ESJ U.S. Transmission requests that the import capacity in the Presidential permit be limited to the physical capacity of the [transmission] line (1250 MW) and that power on this line be limited to renewable energy projects." The letter states that, to date, "Sempra has submitted three interconnection requests to the California Independent System Operator (Cal-ISO), totaling 1120 MW. Although it is possible to submit interconnection requests to completely fill the physical capacity of the [transmission] line, interconnection requests to the Cal-ISO are very expensive and have a limited shelf life. It is unclear how long it will take ESJ Wind to reach the 1120 MW that it currently has in interconnection requests, and therefore it is not prudent to submit additional requests to completely fill the line's capacity."

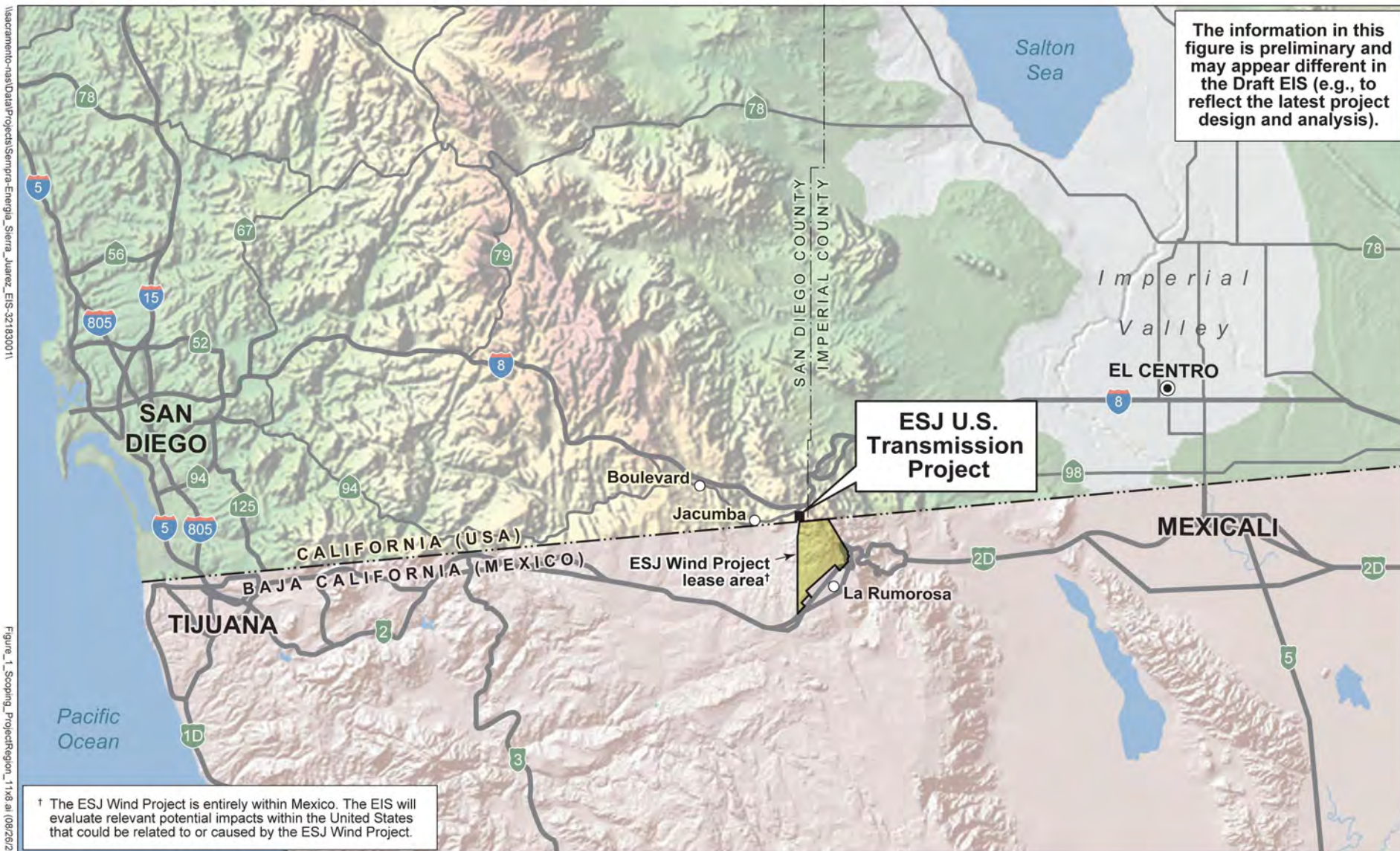


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DOE's Draft EIS will also contain a section that summarizes the comments received during scoping and how they are addressed.





Source(s): EDAW, June 9, 2009 (ESJ U.S. Transmission Project). Sempra Generation, July 15, 2009 (ESJ Wind Project). National Atlas/USGS/Google Maps, 2009 (background map).



AREA SHOWN  
IN THIS FIGURE



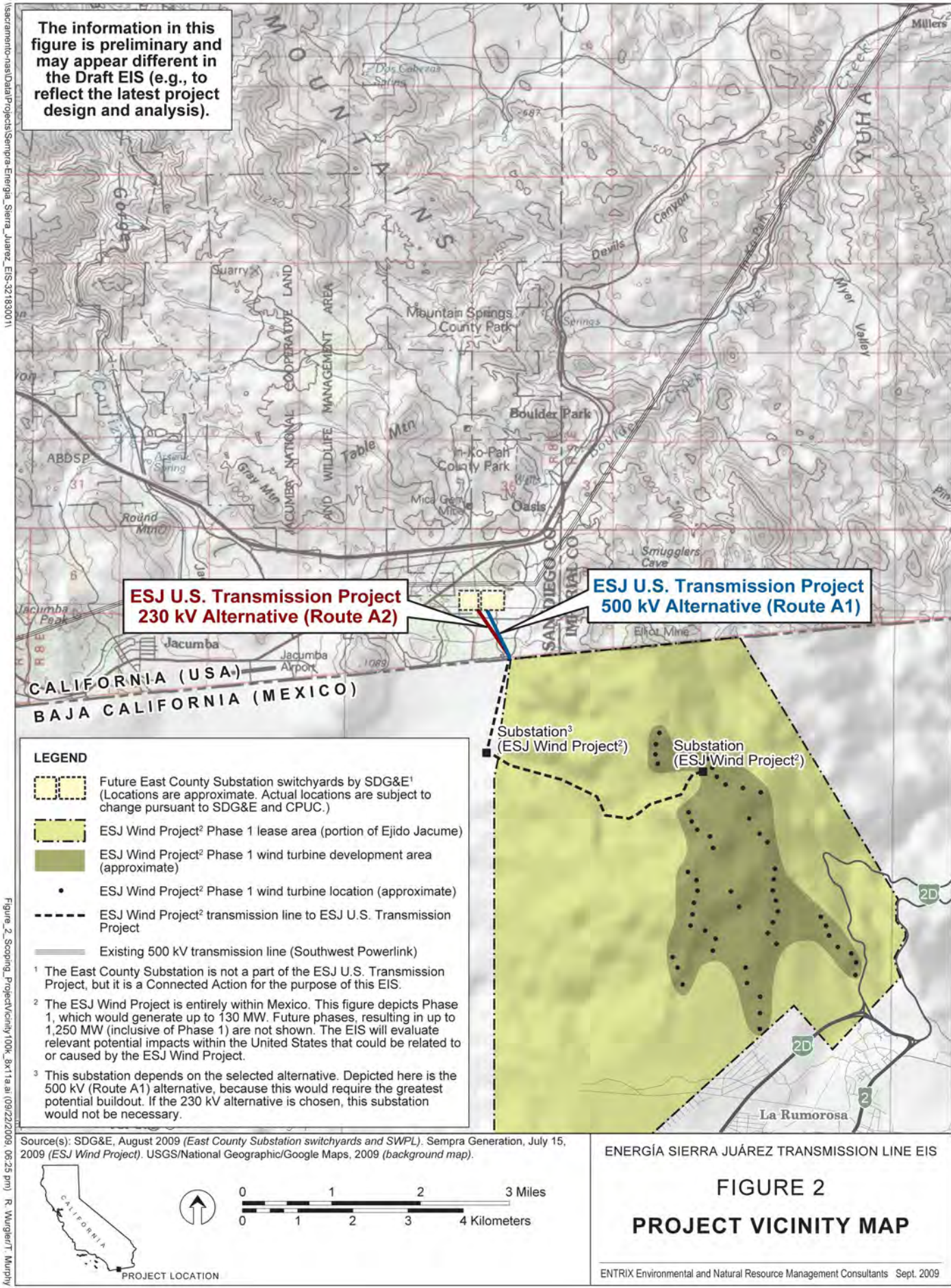
0 10 20 30 Miles  
0 10 20 30 40 Kilometers

ENERGÍA SIERRA JUÁREZ TRANSMISSION LINE EIS

## FIGURE 1 PROJECT REGIONAL MAP

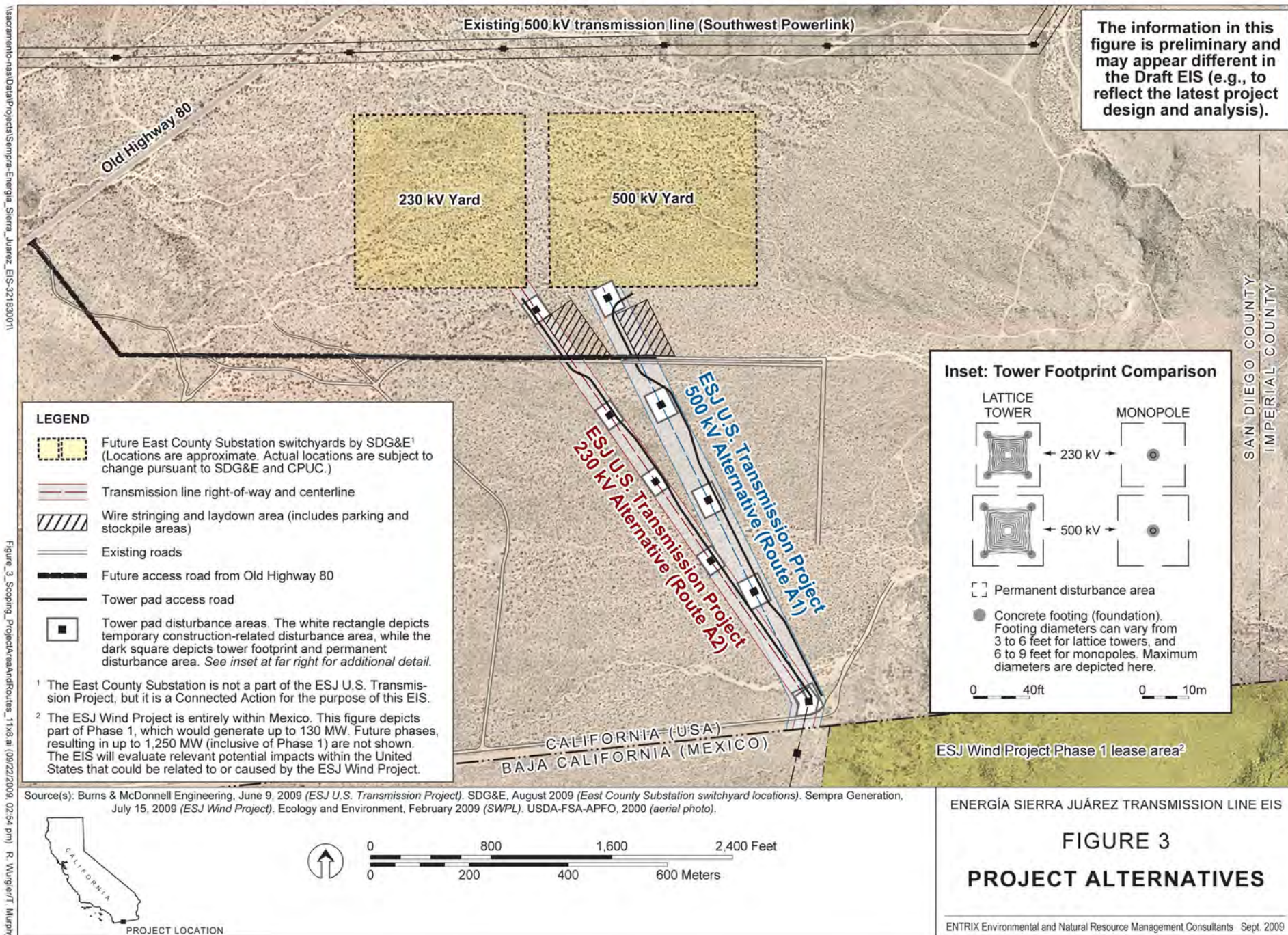
ENTRIX Environmental and Natural Resource Management Consultants Aug. 2009





Figure\_2\_Scoping\_ProjectVicinity100k\_Bx11a.ai (09/22/2009, 06:25 pm) R. Wurgler/T. Murphy







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**Table 1. Summary of Scoping Comments Received by DOE**

Where Addressed in the EIS	Concerns/Comments
Introduction	<ul style="list-style-type: none"> <li>• Level of environmental review in an EA will be inadequate, and an EIS is required, due to level of controversy related to SWPL, and potentially significant direct, indirect and cumulative effects related to federally protected species (including Peninsular bighorn sheep and Quino checkerspot butterfly); various native plant species; cultural resources; visual resources; community character; wildfire hazards; power reliability; and greenhouse gases.</li> <li>• Include assessment and mitigation of impacts related to proposed project components in Mexico; the ecosystem effects in Mexico will also be felt in California due to the cross-border interconnectedness of the systems.</li> <li>• Review BLM analysis of impacts in the Sunrise Powerlink Project RDEIR/S, and reconcile any different conclusions reached in the ESJ analysis.</li> <li>• Require the recommended permit conditions contained in March 24, 2008 letter; and include a permit condition that would restrict the project to transmission of wind power (e.g., similar to Presidential Permit No. PP-235-2).</li> <li>• Clarify the project's relationship to the National Interest Electric Transmission Corridor (NEITC).</li> <li>• Clarify the process for future amendments to the Presidential permit.</li> <li>• The document should address all of the significant impacts related to the Baja Wind (now ESJ) project that were identified in the SWPL EIR/EIS.</li> <li>• Discuss relationship of the project with other power sources in the region. Address the indirect impacts of increased capacity on SWPL due to lack of capacity to handle the proposed project's power supply. Discuss the effects of the proposed power to offset power from other sources (e.g., by taking priority over the Mexicali Power Plant).</li> <li>• Explain the purpose of the project and demonstrate the need for the project.</li> <li>• Discuss reliability of power imported from Mexico, which is outside of U.S. control.</li> </ul>
Proposed Action and Alternatives	<ul style="list-style-type: none"> <li>• Include in the Project Description additional specific project details (e.g., more information on turbine locations, acreage requirements, assumed design and operational standards, and monitoring data in support of design).</li> <li>• Assess alternatives of expanding existing transmission infrastructure within Mexico.</li> </ul>



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**Table 1. Summary of Scoping Comments Received by DOE**

Where Addressed in the EIS	Concerns/Comments
Proposed Action and Alternatives (cont.)	<ul style="list-style-type: none"> <li>• Assess alternative of undergrounding all or portions of the power line.</li> <li>• Assess alternatives for fire safety risks based on recent industry and agency reports.</li> <li>• Discuss the need for gas-powered backup generation, and assess related impacts.</li> <li>• Provide a rationale for the proposed 100-foot easement; this width appears larger than needed based on other narrower easements.</li> </ul>
Affected Environment, Impacts, and Mitigations (all resource areas)	<ul style="list-style-type: none"> <li>• Include assessment and mitigation of impacts related to proposed project components in Mexico.</li> <li>• Review BLM analysis of impacts in the Sunrise Powerlink Project RDEIR/S, and reconcile any different conclusions reached in the ESJ analysis.</li> <li>• The document should address all of the significant impacts related to the Baja Wind (now ESJ) project that were identified in the SWPL EIR/EIS.</li> </ul>
Biological Resources	<ul style="list-style-type: none"> <li>• Include assessment of impacts related to proposed project components in Mexico; the ecosystem effects in Mexico will also be felt in California due to the cross-border interconnectedness of the systems.</li> <li>• Minimize impacts on present and potential future preserve lands within the Las Californias Binational Conservation Initiative; avoid land that would be necessary to meet preserve objectives.</li> <li>• Include sufficient data on migratory birds and assess turbine locations to minimize impacts on birds.</li> <li>• Assess impacts from road construction on habitats.</li> <li>• Discuss wildlife movement, including Peninsular bighorn sheep. Discuss avoidance and minimization measures to offset unavoidable impacts.</li> <li>• Assess impacts on federally protected species including Peninsular bighorn sheep and Quino checkerspot butterfly, as well as California condor flyway and various native plant species.</li> <li>• Peninsular bighorn sheep and Quino checkerspot butterfly proposed and designated critical habitats are within or immediately adjacent to the proposed alternative alignments. Address species and critical habitat, including increased non-native invasive plants, fire, etc. from the transmission line on the critical habitats elements.</li> </ul>



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**Table 1. Summary of Scoping Comments Received by DOE**

Where Addressed in the EIS	Concerns/Comments
Biological Resources (cont.)	<ul style="list-style-type: none"> <li>Quantify direct and indirect impacts of each project component on listed species (e.g., Peninsular bighorn sheep and Quino checkerspot butterfly) and their habitats. Include maps that depict the locations of project features, vegetation types, known occurrences of listed species, suitable habitat for listed species, and proximity of project alignments to designated and proposed critical habitats. Use up-to-date habitat assessments and species survey data.</li> </ul>
Visual Resources	<ul style="list-style-type: none"> <li>Assess visual effects of substation and wind turbines.</li> <li>Assess night lighting impacts due to night lighting fixtures on the turbines and at the proposed East County Substation.</li> <li>Discuss visual impacts due to size of the turbines.</li> <li>The photo simulations for the visual assessment need to be realistic.</li> <li>The visual assessment needs to account for the fact that the turbines will be in motion, and thus the project will attract the attention of viewers.</li> <li>Visual assessment should account for the repeating pattern of long turbine shadows and the effect of these shadows on the viewing experience.</li> <li>The area of disturbance and visual effect should be broadly considered to include more than the immediate project footprint; it should also include surrounding area affected by traffic-induced dust; and include all areas affected electromagnetically.</li> </ul>
Land Use	<ul style="list-style-type: none"> <li>Assess project's compatibility with San Diego County's planning goals related to preservation of rural character and effects of increased industrialization of the project area.</li> </ul>
Cultural Resources	<ul style="list-style-type: none"> <li>The project area has significant archeological resources. The EIS should consider the cultural resources within the project area and in the natural landscape.</li> <li>The project is within the Quechan Tribe's traditional land area and there are several resources affiliated with the Tribe in the area. Allow the Tribe to participate in the cultural resource evaluation.</li> </ul>
Public Health and Safety	<ul style="list-style-type: none"> <li>Increased road construction could lead to increased illegal activity related to the U.S./Mexico border.</li> <li>Increased overhead transmission lines could lead to fire hazards and safety hazards for Border Patrol aircraft.</li> </ul>



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**Table 1. Summary of Scoping Comments Received by DOE**

<b>Where Addressed in the EIS</b>	<b>Concerns/Comments</b>
Public Health and Safety (cont.)	<ul style="list-style-type: none"> <li>• Discuss reliability of the power line due to its location near the border and its vulnerability to damage due to illegal border activity.</li> </ul>
Fire and Fuels Management	<ul style="list-style-type: none"> <li>• Discuss fire hazards related to turbine fires.</li> <li>• Discuss ability to maintain clear areas under power lines.</li> </ul>
Air Quality and Climate Change	<ul style="list-style-type: none"> <li>• Project area air quality is a concern. Assess the proposed project's effects related to traffic-induced dust due to increased off-road vehicle traffic and increased Border Patrol traffic.</li> <li>• Discuss the overall project's greenhouse gas impacts in the context of the U.S. and California regulations related to greenhouse gases.</li> <li>• Incorporate measures to reduce emissions of sulfur hexafluoride.</li> </ul>
Water Resources	<ul style="list-style-type: none"> <li>• Assess potential groundwater impacts; groundwater is scarce in the project area.</li> </ul>
Environmental Justice	<ul style="list-style-type: none"> <li>• Assess Environmental Justice.</li> </ul>
Connected Action	<ul style="list-style-type: none"> <li>• Include assessment of other infrastructure projects that could be linked, in particular the Sunrise Powerlink Project and the East County Substation Project.</li> <li>• Assess night lighting impacts due to night lighting fixtures on the turbines and at the proposed East County Substation.</li> </ul>
Cumulative Impacts	<ul style="list-style-type: none"> <li>• Include assessment of other infrastructure projects that could be linked, in particular the Sunrise Powerlink Project and the East County Substation Project.</li> <li>• Assess cumulative impacts on cultural resources due to multiple projects being proposed in the area. Assess the cultural landscape from a holistic perspective.</li> <li>• Assess cumulative effects related to of the expansion of the Boulevard Substation. Cumulative effects include electric and magnetic effects and nuisance noise due to substation expansion.</li> </ul>
Electrical Transmission System Operation and Reliability	<ul style="list-style-type: none"> <li>• Discuss reliability of power imported from Mexico, which is outside of U.S. control.</li> </ul>



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<b>Table 2. Directory of Stakeholder Comments as of May 7, 2009</b>	
<b>Stakeholder Name and Affiliation</b>	<b>Comment Date and Source</b>
<b>Federal Agencies</b>	
Karen A. Goebel, Assistant Field Supervisor, US Department of the Interior, Fish and Wildlife Service, Ecological Services, Carlsbad Fish and Wildlife Office	March 26, 2009, letter to DOE
<b>Native American Tribes</b>	
Bridget R. Nash-Chrabasz, Quechan Tribe Historic Preservation Officer, Quechan Indian Tribe	March 9, 2009, email to DOE
<b>State Agencies</b>	
No State agency comments were received.	
<b>Local Government Agencies</b>	
Dianne Jacob, Second District Supervisor, San Diego County Board of Supervisors	September 3, 2008, letter to DOE
Eric Gibson, Director, San Diego County Department of Planning and Land Use	March 27, 2009, letter to DOE September 3, 2008, letter to DOE
<b>Non-Governmental Organizations and Individuals</b>	
Aaron Quintanar, Border Power Plant Working Group	March 27, 2009, letter to DOE
Steven Siegel, Center for Biological Diversity and Sierra Club	September 3, 2008, letter to DOE March 24, 2008, letter to DOE
Barbara Chamberlain, Chairman, and Robin M. Simmons, Vice-Chairman, The Committee for Responsible Growth	September 2, 2008, letter to DOE
Donna Tisdale, President, Backcountry Against Dumps	April 10, 2009, email to DOE March 27, 2009, letter to DOE
Donna Tisdale, Boulevard Planning Group	March 27, 2009, letter to DOE September 3, 2008, letter to DOE August 26, 2008, public scoping meeting June 23, 2008, letter to DOE March 21, 2008, letter to DOE
Bill Parsons	August 26, 2008, public scoping meeting
Anita Williams	August 26, 2008, public scoping meeting
Gary Hoyt	August 26, 2008, public scoping meeting
Ray Lutz	August 22, 2008, email to DOE August 26, 2008 public scoping meeting
Edie Harmon	August 26, 2008, public scoping meeting
Dennis Berglund	August 26, 2008, public scoping meeting



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<b>Table 2. Directory of Stakeholder Comments as of May 7, 2009 (cont.)</b>	
<b>Stakeholder Name and Affiliation</b>	<b>Comment Date and Source</b>
Mark Ostrander	August 26, 2008, public scoping meeting
LeAnn Carmichael	August 26, 2008, public scoping meeting
Diane Conklin	August 26, 2008, public scoping meeting
Gerald Yops	August 26, 2008, public scoping meeting
Dennis Trafecanty	August 26, 2008, public scoping meeting
Bill Powers, Power Plant Working Group	August 26, 2008, public scoping meeting
Aaron Quintanar, Border Power Plant Working Group	August 26, 2008, public scoping meeting
Kevin Krekelberg, Citizens United for Sensible Power	August 26, 2008, public scoping meeting
Jeffrey McKernan	August 26, 2008, public scoping meeting
Karen McIntyre	August 26, 2008, public scoping meeting
Laura McKernan	August 26, 2008, public scoping meeting



**Appendix**  
**Stakeholder Comment Log**

**Introduction**

The following table summarizes the individual comments made by each commenter. For the purposes of this Scoping Report, the comments are paraphrased and condensed from the actual comments; however, the environmental analysis included in the EIS will rely on the full text of the comments as submitted. A copy of the actual complete comments is available on the ESJ project Web site at <http://www.esjprojecteis.org/documents.htm>.



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<b>Federal Agencies</b>			
<p>Karen A. Goebel, Assistant Field Supervisor, U.S. Department of the Interior, Fish and Wildlife Service, Ecological Services, Carlsbad Fish and Wildlife Office</p> <p>Role: Biological resources</p>	<ul style="list-style-type: none"> <li>• The project may impact wildlife movement, including Peninsular bighorn sheep. This potential impact should be assessed in the EIS including a discussion of appropriate avoidance and minimization measures. Mitigation to offset unavoidable impacts should be addressed in the context of the NEPA analysis.</li> <li>• Peninsular bighorn sheep and Quino checkerspot butterfly proposed and designated critical habitats are within or immediately adjacent to the proposed alternative alignments. Impacts on the species and critical habitat should be addressed, including increased non-native invasive plants, fire, etc. from the transmission line on the primary constituent elements of the critical habitats.</li> <li>• The EIS should include all the necessary information to accurately quantify the potential direct and indirect impacts of each project component on listed species (e.g., Peninsular bighorn sheep and Quino checkerspot butterfly) and their habitats. A series of maps should be included that depict the locations of project features, such as towers, permanent and temporary access roads, and staging areas. These maps, at a minimum, should also include vegetation types, known occurrences of listed species, suitable habitat for listed species, and proximity of project alignments to designated and proposed critical habitats. The information requested above should be based on up-to-date habitat assessments and species surveys in the project area.</li> <li>• The federally-listed Peninsular bighorn sheep and Quino checkerspot butterfly are known to occur within or near the project area; therefore, consultation under Section 7 of the Endangered Species Act may be required.</li> </ul>	<p>Biological Resources</p> <p>Biological Resources</p> <p>Biological Resources</p> <p>Biological Resources</p>	<p>March 26, 2009, letter to Dr. Jerry Pell, DOE</p>



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<b>Native American Tribes</b>			
Bridget R. Nash-Chrabasz, Quechan Tribe Historic Preservation Officer, Quechan Indian Tribe Role: Cultural Resources	<ul style="list-style-type: none"> <li>• The EIS should consider the cultural and biological resources within the project area and in the natural landscape.</li> <li>• The project is within the Tribe's traditional land area and there are several resources affiliated with the Tribe in the area.</li> <li>• The Tribe requests that they be allowed to participate in the evaluation of cultural resources.</li> <li>• The landscape should be assessed from a holistic perspective.</li> <li>• The EIS should assess cumulative impacts due to multiple projects being proposed in the area.</li> </ul>	Cultural Resources Biological Resources Cultural Resources  Cultural Resources  Cultural Resources Cumulative Impacts	March 9, 2009, email to Dr. Jerry Pell, DOE
<b>State Agencies</b>			
No State agency comments were received.			
<b>Local Government Agencies</b>			
Dianne Jacob, Second District Supervisor, San Diego County Board of Supervisors  Role: Stakeholder and Permitting Agency	<ul style="list-style-type: none"> <li>• Level of environmental review in an EA will be inadequate. An EIS is required due to potentially significant direct and indirect effects related to biological resources, cultural resources, visual resources, community character, wildfire hazards, and power reliability.</li> <li>• Project should not be considered independently of other infrastructure projects that could be linked, in particular the Sunrise Powerlink Project and the East County Substation Project.</li> <li>• Project would be inconsistent with San Diego County's planning goals related to preservation of rural character.</li> </ul>	Land Use Visual Resources Public Health and Safety Electrical Reliability Cumulative Impacts  Connected Action	September 3, 2008, letter to DOE



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Dianne Jacob (cont.)	<ul style="list-style-type: none"> <li>Reliability of power imported from Mexico is a concern because this area is out of the U.S. control.</li> </ul>	Land Use Electrical Reliability	
Eric Gibson, Director, San Diego County Department of Planning and Land Use  Role: Stakeholder and Permitting Agency	<p>Note: the County of San Diego's March 27, 2009 and September 3, 2008 letters are very similar; therefore the comments are combined below to reduce repetition.</p> <ul style="list-style-type: none"> <li>County concurs that an EIS is appropriate.</li> <li>County is concerned about quality of life in project area communities.</li> <li>Project could have negative effects on lands purchased by the County for conservation and impact planning efforts for an East County Plan being developed under the Multiples Species Conservation Plan (MSCP).</li> <li>Refer to County staff's September 3, 2008 written comments and August 26, 2008 oral comments.</li> <li>County supports alternative energy such as wind and solar.</li> <li>NOI should be corrected to disclose that ESJ will rely upon the Sunrise Power Link (SPL) or other transmission upgrade.</li> <li>The EIS should evaluate impacts and develop mitigations using the County's Guidelines, available online.</li> <li>The conclusions related to connected actions reached by BLM in the SPL project should also be applied to the ESJ project. Effects of La Rumorosa should be analyzed in the EIS using available information regarding turbine siting, roads, etc.</li> <li>Analyze cumulative impacts from connected actions including SPL, ECO Substation, new 69 kV line, communication tower, and expanded Boulevard Substation.</li> <li>Cumulative impacts should also consider ESJ right-of-way for pipelines to import natural gas from Mexico to U.S.; other renewable energy or</li> </ul>	Socioeconomics  Land Use  N/A  N/A N/A  N/A  Cumulative Impacts Connected Actions  Cumulative Impacts	March 27, 2009, letter to Dr. Jerry Pell, DOE  and  September 3, 2008, letter to Ellen Russell, DOE



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Eric Gibson (cont.)	<p>other energy projects in border region; East County MSCP; County General Plan Update.</p> <ul style="list-style-type: none"> <li>• Cumulative impacts should also consider the DOE/BLM Solar PEIS, the BLM South Coast Resource Management Plan (RMP) Revision, and the BLM Eastern San Diego County Resource Management Plan (RMP) Revision.</li> <li>• Impose a condition on ESJ that limits power transmitted from La Rumorosa wind project</li> <li>• Analyze the project need, capacity, proposed locations, and wildfire risks; take into consideration the alternative of using urban structures for renewable energy; the importation of renewable energy imported from Imperial County.</li> <li>• Indicate the specific region or urban area for which the energy is needed.</li> <li>• Indicate whether the power is needed to meet federal renewable energy goals, California renewable energy goals, such as SB107, or energy goals in general.</li> <li>• Evaluate cultural resources impacts of the project and connected actions; consult South Coastal Information Center and the Museum of Man.</li> <li>• The area has high scenic and recreational use qualities. Evaluate impacts on recreational uses.</li> <li>• Evaluate trans-boundary effects in accordance with Council on Environmental Quality (CEQ) guidelines.</li> <li>• Place conditions on the Presidential permit that minimize harm in the U.S. while recognizing Mexico's sovereignty.</li> <li>• The ESJ project and related projects could alter the rural character of the area. Evaluate growth inducing effects of new industrial facilities,</li> </ul>	<p>Cumulative Impacts</p> <p>Purpose and Need</p> <p>Purpose and Need Proposed Action and Alternatives Purpose and Need</p> <p>Purpose and Need</p> <p>Cultural Resources Connected Action</p> <p>Visual Resources Recreation All resource areas All resource areas</p> <p>Land Use Socioeconomics</p>	



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Eric Gibson (cont.)	<p>and evaluate impacts to the rural character of the existing communities.</p> <ul style="list-style-type: none"> <li>• Clarify and evaluate maintenance activities.</li> <li>• Evaluate effects on minority and low income communities (environmental justice).</li> <li>• Improve the accessibility of meetings, documents, and notices.</li> <li>• Evaluate impacts on the Jacumba Airport for flight safety and radio frequency interference.</li> <li>• Evaluate scenic view sheds and vistas, including private residential areas, public parks and recreation areas, public roads. Address property value impacts.</li> <li>• ESJ and connected actions including La Rumorosa should be sited to reduce or eliminate visual impacts.</li> <li>• Evaluate corona noise from ESJ and connected actions; construction noise; turbine noise and vibration; and potential blasting that may be felt in the County.</li> <li>• Evaluate ignition potential (due to increased human activity, downed power lines, etc); increased hazard related to fire susceptibility (including cross-border fires).</li> <li>• Evaluate undergrounding in the alternatives analysis.</li> <li>• Discuss coordination of fire fighting between U.S. and Mexico.</li> <li>• Evaluate fugitive dust and other air pollutants from construction, maintenance, decommissioning, and operations, and from vegetation removal, including cross-border impacts.</li> <li>• Identify water source for construction, including construction and concrete mixing in Mexico; consider shared groundwater basins. Evaluate water used for revegetation and restoration.</li> </ul>	<p>Project Description Environmental Justice</p> <p>N/A</p> <p>Public Health and Safety</p> <p>Visual Resources</p> <p>Visual Resources</p> <p>Noise</p> <p>Fire and Fuels Management</p> <p>Alternatives Fire and Fuels Management Air Quality</p> <p>Water Resources</p>	



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Eric Gibson (cont.)	<ul style="list-style-type: none"> <li>• Evaluate impacts on greenhouse gas emissions and climate change; consider greenhouse gas and climate change impacts of alternatives including urban renewable locations; fossil fuel power generation that could use the same transmission lines.</li> <li>• Evaluate impacts on greenhouse gas emissions and climate change resulting from potential increased reliance on fossil fuel in Mexico as a result of their exporting renewable power to the U.S.; this could defeat the purpose of SB107 and result in increased air emissions in San Diego County from cross-border air pollution.</li> <li>• Evaluate impacts on designated areas of high biological value in the County's MSCP; demonstrate consistency with the MSCP and proposed covered species.</li> <li>• Consider impacts on preliminary preserve design for regional habitat linkages and wildlife corridors, including cross-border corridors.</li> <li>• Use the most current biological survey data.</li> <li>• Evaluate impacts on raptors, bats and nesting birds, including species that may migrate between U.S. and Mexico.</li> <li>• Evaluate introduction of non-native species; direct loss of habitat; dust impacts; impacts on wildlife movement and migratory behavior due to wind turbines; consistency with Migratory Bird Treaty Act and Endangered Species Act; electrocution and collision with transmission lines by birds; increased predation.</li> <li>• Discuss impacts on County maintained roads; discuss road closures; coordinate with County Department of Public Works traffic staff to develop traffic plans and obtain traffic control permits and encroachment permits; indicate where the proposed access roads will traverse and/or connect to County maintained roads.</li> <li>• Provide operational assessment for any new driveways/access points.</li> </ul>	<p>Air Quality</p> <p>Air Quality</p> <p>Biological Resources</p> <p>Biological Resources</p> <p>Biological Resources</p> <p>Biological Resources</p> <p>Biological Resources</p> <p>Transportation and Traffic</p> <p>Transportation and Traffic</p>	



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Eric Gibson (cont.)	<ul style="list-style-type: none"> <li>Consider a permit condition that is linked to a commitment that La Rumorosa will comply with U.S. environmental standards and use best available technologies.</li> <li>Include an integrated pest management plan. Time the construction to avoid impacts on wildlife. Use existing roads to the extent feasible. Consider a fire management strategy.</li> <li>Include available details of the project elements in Mexico.</li> <li>Describe status of permitting and related data and studies for project elements in Mexico; if this information has not gone through environmental review, consider postponing or conditioning the ESJ project so that it does not receive final approval until La Rumorosa has been finalized.</li> </ul>	<p>Transportation and Traffic</p> <p>Biological Resources</p> <p>Fire and Fuels Management</p> <p>Proposed Action and Alternatives</p> <p>Proposed Action and Alternative</p>	
<b>Non-Governmental Organizations and Individuals</b>			
Aaron Quintanar, Border Power Plant Working Group	<ul style="list-style-type: none"> <li>The ESJ project is subject to the findings/conclusions of the BLM and CPUC Final EIR/EIS.</li> <li>Industrialization of the area will impact ecosystems and bioregions, including cross-border habitat for Peninsular bighorn sheep, Quino checkerspot butterfly, and California condor. Address risk of electrocution to condors; bird collisions with turbines.</li> <li>Maintenance roads will impact plant communities and introduce non-native invasive species.</li> <li>Project will impact the Las Californias Binational Conservation Initiative (LCBCI) conservation efforts by introducing large scale industrial project into the conservation site.</li> <li>Address adverse impacts related to vegetation type conversion due to wildfires caused by transmission lines.</li> </ul>	<p>N/A</p> <p>Biological Resources</p> <p>Biological Resources</p> <p>Biological Resources</p> <p>Biological Resources</p>	March 27, 2009, letter to Dr. Jerry Pell, DOE



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Aaron Quintanar (cont.)	<ul style="list-style-type: none"> <li>Roads could serve as conduits for undocumented immigrants and illegal drugs entering the U.S.</li> <li>Consider alternatives of “in-basin” energy supplies (e.g., as part of the No Project Alternative). Refer to the July 2003 San Diego County Energy 2020 document.</li> </ul>	Public Health and Safety  Proposed Action and Alternatives	
Steve Siegel, Center for Biological Diversity and Sierra Club  Role: Environmental Group	<ul style="list-style-type: none"> <li>Explain purpose and need of project.</li> <li>Assess alternatives of expanding existing infrastructure.</li> <li>Assess alternative of undergrounding all or portions of the power line.</li> <li>Level of environmental review in an EA will be inadequate, and an EIS is required, due to potentially significant direct, indirect and cumulative effects related to federally protected species (including Peninsular bighorn sheep and Quino checkerspot butterfly); various native plant species; and greenhouse gases.</li> <li>Review BLM analysis of impacts in the Sunrise Powerlink Project RDEIR/S, and reconcile any different conclusions reached in the ESJ analysis.</li> <li>Include assessment of impacts related to project components in Mexico; the ecosystem effects in Mexico will also be felt in California due to the cross-border interconnectedness of the systems.</li> <li>Minimize impacts on present and potential future preserve lands within the Las Californias Binational Conservation Initiative; avoid land that would be necessary to meet preserve objectives.</li> <li>Include sufficient data on migratory birds and assess turbine locations to minimize impacts on birds.</li> <li>Assess alternatives for fire safety risks based on recent industry and agency reports.</li> </ul>	Purpose and Need Proposed Action and Alternatives Proposed Action and Alternatives  Biological Resources  All resource areas  All resource areas  Biological Resources  Biological Resources Fire and Fuels Management	March 24, 2008, and September 3, 2008, letters to DOE



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Steve Siegel (cont.)	<ul style="list-style-type: none"> <li>Require the recommended permit conditions contained in March 24, 2008, letter (summarized below); and include a permit condition that would restrict the project to transmission of wind power (e.g., similar to Presidential Permit No. PP-235-2).</li> <li>Include in the Project Description additional specific project details than is provided in the application (e.g., more information on turbine locations, assumed design and operational standards, and monitoring data in support of design).</li> </ul>	Fire and Fuels Management          Proposed Action and Alternatives	
Steve Siegel, Center for Biological Diversity and Sierra Club   Role: Environmental Group	<ul style="list-style-type: none"> <li>Specific wind development location information is needed, including data on wind speed and direction, wind shear, temperature and humidity; these data can be used to assess impacts on birds, and to assess fire risks.</li> <li>Site testing is needed for the Quino checkerspot butterfly habitat.</li> <li>Refer to all of the impacts and mitigations identified in the Sunrise DEIR/DIES, including the following impacts:               <ul style="list-style-type: none"> <li>Change in rural character due to introduction of industrial features.</li> <li>Project appears to be located on the documented Jacumba Quino checkerspot butterfly population.</li> <li>Construction of access roads and project structures will lead to loss of sensitive habitat vegetation in US and Mexico.</li> <li>Tree trimming could violate Migratory Bird Treaty Act.</li> <li>Increased risk of wildfire could lead to type conversion of habitat, and introduction of non-native invasive species.</li> <li>Construction will impact jurisdictional waters.</li> <li>Construction dust will impact vegetation.</li> </ul> </li> </ul>	Proposed Action and Alternatives Biological Resources   Biological Resources   Land Use   Biological Resources   Biological Resources Biological Resources   Biological Resources Water Resources Biological Resources	March 24, 2008, letter to DOE



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Steve Siegel (cont.)	<ul style="list-style-type: none"> <li>• Construction and maintenance will have direct and indirect impacts on threatened and endangered wildlife including Peninsular bighorn sheep, Quino checkerspot butterfly, and barefoot banded gecko.</li> <li>• Loss of nesting birds and bat nesting colonies.</li> <li>• Listed migratory birds and bats could collide with transmission lines and turbines.</li> <li>• California condors could be electrocuted in transmission lines.</li> <li>• Refer to applicable testimony in the Sunrise proceeding related to the regional cross-border ecosystem and relate management efforts; potential habitat loss for listed species; high fire-prone nature of the project areas; direct and indirect effects of transmission lines; and change in rural character.</li> <li>• Incorporate the applicable recommended permit conditions in the Sunrise DEIR/DIES, including: <ul style="list-style-type: none"> <li>• Limit the permitted use to wind generation.</li> <li>• Incorporate safety recommendations from an investigation and rulemaking requested by SDG&amp;E regarding wildfire risk from overhead power lines.</li> <li>• Reduce emissions of sulfur hexafluoride from transmission line operations consistent with SCE and PG&amp;E procedures.</li> <li>• Incorporate California Energy Commission's Guidelines for Reducing Impacts to Birds and Bats from Wind Energy Development and guidelines from the Avian Power Line Interaction Committee.</li> <li>• Incorporate mitigations identified through consultation with U.S. Fish and Wildlife Service; ensure the power line is located outside the habitat needed by Peninsular bighorn sheep and</li> </ul> </li> </ul>	<p>Biological Resources</p> <p>Biological Resources Biological Resources</p> <p>Biological Resources</p> <p>Biological Resources</p> <p>Fire and Fuels Management</p> <p>Air Quality</p> <p>Biological Resources</p> <p>Biological Resources</p>	



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Steve Siegel (cont.)	Quino checkerspot butterfly. <ul style="list-style-type: none"> <li>• Include measures to reduce light pollution.</li> <li>• Do not impair planning vision for Las Californias Binational Conservation Initiative.</li> </ul>	Visual Resources Biological Resources	
Barbara Chamberlain, Chairman, and Robin M. Simmons, Vice-Chairman, The Committee for Responsible Growth  Role: Citizen Group	<ul style="list-style-type: none"> <li>• Level of environmental review in an EA will be inadequate, and an EIS is required, due to potentially significant direct and cumulative effects on eastern San Diego County residents and wildlife</li> <li>• Assess visual effects of substation and turbines</li> <li>• Assess night lighting impacts</li> <li>• Assess wildfires</li> <li>• Assess Environmental Justice</li> <li>• Assess impacts from road construction on habitats</li> </ul>	Biological Resources  Visual Resources Connected Actions Fire and Fuels Management Environmental Justice Biological Resources	September 2, 2008, letter to DOE
Donna Tisdale, President, Backcountry Against Dumps Role: Citizen Group	<ul style="list-style-type: none"> <li>• Incorporate BLM's April 9th News Release, "BLM Cautions Public Regarding Border Violence" into earlier comments.</li> <li>• Adding energy infrastructure in the border region could impact energy reliability or security; projects could provide cover for and exacerbate criminal activities in the area.</li> </ul>	Public Health and Safety  Electrical Reliability Public Health and Safety	April 10, 2009, email DOE
Donna Tisdale, President, Backcountry Against Dumps Role: Citizen Group	<ul style="list-style-type: none"> <li>• NOI lacks information on connected actions and potential for project to be used to export non-renewable energy from Mexico to the U.S.</li> <li>• Request local scoping hearing to address new information and cumulative impacts since the EA scoping was held in Fall 2008.</li> </ul>	Purpose and Need  Cumulative Impacts	March 27, 2009, letter to DOE



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Donna Tisdale, Boulevard Planning Group  Role: Citizen Group	<ul style="list-style-type: none"> <li>A new round of scoping meetings is needed based on new information that should be considered in the EIS, including: health impacts from noise and vibration from turbines; air pressure impacts on the lung tissue of bats; missing details about the ESJ Project.</li> </ul>	Proposed Action and Alternatives	March 27, 2009, letter to DOE
	<ul style="list-style-type: none"> <li>Cumulative impacts of industrial development will change the rural character. The segmented review process of multiple major projects does not adequately address the cumulative impacts of the projects. Cumulative impact assessment should address other planned projects, including other wind development projects in the La Rumorosa area McCain Valley and Campo reservation lands; and solar projects in the Imperial Valley.</li> </ul>	Cumulative Impacts	
	<ul style="list-style-type: none"> <li>EIS should consider reasonable alternatives, including a combination of retrofitted power plants, in-basin peaker generation, and roof-top solar; and use of feed-in tariffs.</li> </ul>	Proposed Action and Alternatives	
	<ul style="list-style-type: none"> <li>Ensure adequate setbacks (e.g., 2 miles) between turbines and property boundaries, international border, buildings, roads, recreation areas, and sensitive habitat to avoid impacts from blade shedding, tower collapse, noise and vibration, flicker effect, turbine fires, and flaming debris,</li> </ul>	Biological Resources	
	<ul style="list-style-type: none"> <li>Turbine placement should avoid impacts on radio communications and aviation operations, including gliders that use Jacumba Airport.</li> </ul>	Public Health and Safety	
	<ul style="list-style-type: none"> <li>Refer to recent regional economic data for statistics on local area's high unemployment rate and low per capita income.</li> </ul>	Environmental Justice	
	<ul style="list-style-type: none"> <li>BHS have been recently sighted in Jacumba Mountains within the designated BHS critical habitat, in close proximity to ESJ and other proposed projects. (Reference attached March 19, 2009, email from Kevin Geller, Border Patrol Agent, to Donna Tisdale)</li> </ul>	Biological Resources	
	<ul style="list-style-type: none"> <li>Clarify whether local roads will be used, and whether road improvements will be needed for turbine construction and other project</li> </ul>	Proposed Action and Alternatives	



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<b>Stakeholder Name, Affiliation, and Role on Project</b>	<b>Concerns/Comments</b>	<b>Resource Topic to be Addressed in EIS</b>	<b>Comment Source</b>
Donna Tisdale (cont.)	component development. EIS should disclose any engineering challenges that will require additional development impacts.		
Donna Tisdale, Boulevard Planning Group  Role: Citizen Group	<ul style="list-style-type: none"> <li>Other projects with connected, related, direct, indirect, and/or cumulative impacts, and effects include: Sempra's wind energy project; Sempra's existing LNG gas transmission pipeline in the project area; SDG&amp;E's existing 500kV Southwest Powerlink; SDG&amp;E's 500 kV Sunrise Powerlink; SDG&amp;E's ECO Substation; SDG&amp;E's Boulevard Substation expansion; new 69 kV line between ECO Substation and Boulevard Substation; BLM's recent changes to the McCain Valley Resource Conservation Area downgrading the Visual Resource Management classification and increasing the wind energy access; new substation and 69 kV line from PPM Energy/Iberdrola Renewables' 200 MW wind project on BLM land in McCain Valley to Boulevard Substation.</li> <li>Level of environmental review in an EA will be inadequate, and an EIS is required due to the range and magnitude of potential impacts. The range of impacts covers numerous issues (38 topics listed) including issues related to cumulative impacts; public safety; environmental justice; community character; compliance with local land use policies; visual resources; property values; groundwater and surface water; tourism and recreation; growth inducement; electric reliability; cultural and biological resources; critical habitats; and designated parks, wilderness and areas of critical environmental concern.</li> <li>Name change and hearing date changes creates confusion and discourages public participation</li> <li>Concerned that the original 7,500 acres proposed for the wind farm is understated.</li> <li>Sempra's statement at the August 26, 2009 scoping meeting regarding the availability of 314,000 acres under lease in northern Mexico</li> </ul>	<p>Proposed Action and Alternatives Cumulative Impacts Connected Action</p> <p>All resource areas</p> <p>N/A Proposed Action and Alternatives Proposed Action and Alternatives</p>	September 3, 2008, letter to DOE



**Energia Sierra Juarez U.S. Transmission, LLC**  
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**September 2009**

<b>Appendix - Energia Sierra Juarez Project EIS - Stakeholder Comment Log</b>			
<b>Stakeholder Name, Affiliation, and Role on Project</b>	<b>Concerns/Comments</b>	<b>Resource Topic to be Addressed in EIS</b>	<b>Comment Source</b>
Donna Tisdale (cont.)	<p>represents new information and the potential for increased impacts that should be addressed in a full EIS.</p> <ul style="list-style-type: none"> <li>Concerned that other non-renewable power sources are reasonably foreseeable and that the proposed electric generation-tie line will not be limited to transmission of wind power based on presence of LNG gas transmission line, and planned water pipeline in Project vicinity, which suggest that other gas fires power plants may eventually be constructed and rely on the proposed line.</li> <li>Concerned that infrastructure development in this Border region, and potential future changes in the Mexican government, does not maintain or increase electric reliability.</li> <li>Wind turbines could impact California condors.</li> <li>The required 6,000 gallons of water for each turbine foundation could impact U.S. water supply, and no cross-border water transfers should be allowed.</li> <li>Turbines will be visible from multiple locations in Jacumba, Boulevard, and various recreational and wilderness areas. Cumulative visual effects will be significant.</li> <li>The SDG&amp;E ECO Substation will have impacts on water supply, cultural resources, and night skies.</li> </ul>	<p>Proposed Action and Alternatives</p> <p>Electrical Reliability</p> <p>Biological Resources</p> <p>Water Resources</p> <p>Visual Resources</p> <p>Water Resources</p> <p>Cultural Resources</p> <p>Visual Resources</p>	
<p>Donna Tisdale, Boulevard Planning Group</p> <p>Role: Citizen Group</p>	<ul style="list-style-type: none"> <li>Name change creates confusion</li> <li>Level of environmental review in an EA will be inadequate, and an EIS is required due to the range and magnitude of potential impacts.</li> <li>Concerned that other non-renewable power sources are reasonably foreseeable and that the proposed electric generation-tie line will not be limited to transmission of wind power based on presence of LNG gas transmission line, and planned water pipeline in Project vicinity,</li> </ul>	<p>Proposed Action and Alternatives</p> <p>N/A</p> <p>Cumulative Impacts</p>	<p>August 26, 2008, public scoping meeting</p>



**Energia Sierra Juarez U.S. Transmission, LLC**  
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<b>Appendix - Energia Sierra Juarez Project EIS - Stakeholder Comment Log</b>			
<b>Stakeholder Name, Affiliation, and Role on Project</b>	<b>Concerns/Comments</b>	<b>Resource Topic to be Addressed in EIS</b>	<b>Comment Source</b>
	<p>which suggest that other gas fires power plants may eventually be constructed and rely on the proposed line.</p> <ul style="list-style-type: none"> <li>• Concerned that the acreage proposed for the wind farm is understated.</li> <li>• Concerned that potential impacts in Mexico have not been adequately addressed or mitigated.</li> <li>• Project should not be considered independently of other infrastructure projects that could be linked, including the Sunrise Powerlink Project, the East County Substation Project, Boulevard Substation expansion, and other projects in the region.</li> <li>• Discuss the need for gas-powered backup generation, and associated impacts.</li> <li>• Clarify the Project's relationship to the National Interest Electric Transmission Corridor (NEITC)</li> <li>• Discuss visual impacts due to size of the turbines and night lighting fixtures on the turbines; assess impacts of night lighting at the proposed East County substation.</li> <li>• Discuss fire hazards related to turbine fires</li> </ul>	<p>Proposed Action and Alternatives</p> <p>Cumulative Impacts Connected Action Proposed Action and Alternatives</p> <p>Proposed Action and Alternatives</p> <p>Visual Resources Fire and Fuels Management</p>	
<p>Donna Tisdale, Boulevard Planning Group</p> <p>Role: Citizen Group</p>	<ul style="list-style-type: none"> <li>• Delay DOE scoping hearings on PP-334 until late July or August 2008 based on the June 20, 2008 CPUC ruling ordering recirculation of the Sunrise Power Link Project DEIR/EIS.</li> </ul>	Introduction	June 23, 2008, letter to DOE
<p>Donna Tisdale, Boulevard Planning Group</p> <p>Role: Citizen Group</p>	<ul style="list-style-type: none"> <li>• Increase in industrial character; increased visual contrast and reduced visual quality; day and night aviation lighting will impact panoramic views and dark sky quality.</li> <li>• Cumulative impacts from ESJ, Sunrise project, and other area projects</li> </ul>	<p>Visual Resources Land Use</p> <p>Cumulative impacts</p>	March 21, 2008, letter to DOE



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<b>Appendix - Energia Sierra Juarez Project EIS - Stakeholder Comment Log</b>			
<b>Stakeholder Name, Affiliation, and Role on Project</b>	<b>Concerns/Comments</b>	<b>Resource Topic to be Addressed in EIS</b>	<b>Comment Source</b>
Donna Tisdale (cont.)	<ul style="list-style-type: none"> <li>• Increased risk of wildfire.</li> <li>• Negative impact on rural community character, quality of life, property values; proposal is too massive and industrial in scale to fit in with existing rural community character</li> <li>• Impacts on PBS and QCB habitat, and area conservation lands, including cross-border land conservation and management efforts.</li> <li>• Environmental Justice issues in Jacumba, Boulevard, Jacume, and La Rumorosa</li> <li>• Growth-inducing effects of future expansion potential, including cross-border LNG and new power plants in Mexico.</li> <li>• Groundwater and surface water redirected or contaminated from drilling/blasting turbine foundations and turbine construction.</li> <li>• Cross-border construction air quality impacts from equipment operation and erosion.</li> <li>• Explain need for cross-border transmission.</li> </ul>	Fire and Fuels Management Land Use Socioeconomics Biological Resources  Environmental Justice  Socioeconomics  Water Resources Air Quality  Purpose and Need	
Bill Parsons  Role: Individual	<ul style="list-style-type: none"> <li>• Level of environmental review in an EA will be inadequate, and an EIS is required because the Project is linked to other projects.</li> <li>• The photo simulations for the visual assessment need to be realistic</li> <li>• The visual assessment needs to account for the fact that the turbines will be in motion, and thus the project will attract the attention of viewers.</li> <li>• Visual assessment should account for the repeating pattern of long turbine shadows, and the effect of these shadows on the viewing experience.</li> <li>• The area of disturbance and visual effect should be broadly considered to include more than the immediate project footprint; it should also include surrounding area affected by traffic-induced dust; and include</li> </ul>	Cumulative impacts  Visual Resources Visual Resources  Visual Resources  Visual Resources Air Quality	August 26, 2008, public scoping meeting



**Energia Sierra Juarez U.S. Transmission, LLC**  
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<b>Appendix - Energia Sierra Juarez Project EIS - Stakeholder Comment Log</b>			
<b>Stakeholder Name, Affiliation, and Role on Project</b>	<b>Concerns/Comments</b>	<b>Resource Topic to be Addressed in EIS</b>	<b>Comment Source</b>
	<p>all areas affected electromagnetically</p> <ul style="list-style-type: none"> <li>Discuss the cultural effects and compatibility with San Diego County land use policies (particularly related to preservation of rural character) due to increased industrialization of the project area</li> </ul>	Cultural Resources Land Use	
Anita Williams Role: Individual	<ul style="list-style-type: none"> <li>The Project area has significant archeological resources</li> <li>Groundwater is scarce in the Project area</li> <li>The Project is linked to other projects.</li> </ul>	Cultural Resources Water Resources Cumulative Impacts	August 26, 2008, public scoping meeting
Gary Hoyt Role: Individual	<ul style="list-style-type: none"> <li>The Project is linked to other projects, in particular the planned expansion of the Boulevard Substation.</li> <li>Project area air quality is a concern. The proposed project would have direct effects related to traffic-induced dust due to increased off-road vehicle traffic; increased Border Patrol traffic.</li> <li>Increased road construction could lead to increased illegal activity related to the Border</li> <li>Increased overhead transmission lines could lead to fire hazards and safety hazards for Border Patrol aircraft.</li> <li>Concerned that the proposed 100-foot easement to larger than needed, based on other narrower easements.</li> <li>The project would contribute to cumulative effects related to of this expansion of the Boulevard Substation. Cumulative effects include electric and magnetic effects and nuisance noise due to substation expansion.</li> <li>Clarify the process for future amendments to the Presidential permit</li> </ul>	<p>Cumulative Impacts Connected Action Air Quality</p> <p>Public Health and Safety</p> <p>Fire and Fuels Management Proposed Action and Alternatives</p> <p>Cumulative Impacts</p> <p>Introduction</p>	August 26, 2008, public scoping meeting



**Energia Sierra Juarez U.S. Transmission, LLC**  
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<b>Appendix - Energia Sierra Juarez Project EIS - Stakeholder Comment Log</b>			
<b>Stakeholder Name, Affiliation, and Role on Project</b>	<b>Concerns/Comments</b>	<b>Resource Topic to be Addressed in EIS</b>	<b>Comment Source</b>
Ray Lutz Role: Individual	<ul style="list-style-type: none"> <li>• The Project is linked to other projects, in particular the Sunrise Powerlink Project, and a full EIS is needed.</li> <li>• Concerned that the project description is changing in terms of the amount and acreage and location, which will affect the density of the wind farm. The location and acreage of the wind turbines needs to be clearly established.</li> <li>• Concerned that the power line is oversized for the project, and that other non-renewable projects would eventually use the line.</li> </ul>	Purpose and Need Cumulative Impacts Proposed Action and Alternatives  Proposed Action and Alternatives	August 22, 2008, email, and August 26, 2008, public scoping meeting
Edie Harmon Role: Individual	<ul style="list-style-type: none"> <li>• The Project is linked to other projects, in particular the Sunrise Powerlink Project.</li> </ul>	Cumulative Impacts	August 26, 2008, public scoping meeting
Dennis Berglund Role: Individual	<ul style="list-style-type: none"> <li>• The Project is linked to other projects, in particular the Sunrise Powerlink Project.</li> <li>• Concerned about the reliability of the power line due to its location near the border and its vulnerability to damage due to illegal border activity</li> <li>• Consider running the power line underground.</li> <li>• The project is not needed at the proposed location based on availability of other sites within the U.S., and lack of demand in San Diego County</li> <li>• Concerned that the power line is oversized for the project, and that other non-renewable projects would eventually use the line.</li> </ul>	Cumulative Impacts  Electrical Reliability Proposed Action and Alternatives Purpose and Need  Proposed Action and Alternatives	August 26, 2008, public scoping meeting
Mark Ostrander Role: Individual	<ul style="list-style-type: none"> <li>• Concerned that new overhead transmission lines could increase risk of wildfire hazards. Discuss ability to maintain clear areas under power lines. Consider buried power lines.</li> <li>• An EIS is needed.</li> </ul>	Fire and Fuels Management  N/A	August 26, 2008, public scoping meeting



**Energia Sierra Juarez U.S. Transmission, LLC**  
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<b>Appendix - Energia Sierra Juarez Project EIS - Stakeholder Comment Log</b>			
<b>Stakeholder Name, Affiliation, and Role on Project</b>	<b>Concerns/Comments</b>	<b>Resource Topic to be Addressed in EIS</b>	<b>Comment Source</b>
LeAnn Carmichael  Role: Individual	<ul style="list-style-type: none"> <li>• An EIS is needed to consider other related projects.</li> <li>• The document should address all of the Class I and Class II impacts related to the Baja Wind project that were identified in the SWPL EIR/EIS.</li> <li>• Demonstrate the need for the project</li> </ul>	Cumulative Impacts All resource areas  Purpose and Need	August 26, 2008, public scoping meeting
Diane Conklin  Role: Individual  Diane Conklin (cont.)	<ul style="list-style-type: none"> <li>• Confirm that the proposed power line would not be used for other non-renewable energy projects.</li> <li>• Confirm the end user of power</li> <li>• Confirm the source of backup power</li> <li>• Discuss the overall project's greenhouse gas impacts in the context of the U.S. and California regulations related to greenhouse gases.</li> <li>• An EIS is required due to the range and magnitude of potential impacts.</li> </ul>	Purpose and Need Proposed Action and Alternatives Proposed Action and Alternatives Air Quality N/A	August 26, 2008, public scoping meeting
Gerald Yops  Role: Individual	<ul style="list-style-type: none"> <li>• An EIS is required.</li> </ul>	N/A	August 26, 2008, public scoping meeting
Dennis Trafecanty  Role: Individual	<ul style="list-style-type: none"> <li>• Explain the need for the generation-tie line based on availability of existing power lines in Mexico.</li> <li>• Discuss reliability of power source originating in Mexico</li> <li>• An EIS is required due to the range and magnitude of potential impacts, in particular the potential impacts on California condor and BHS; need to discuss existing cross-border wildlife coordination efforts.</li> <li>• Discuss fire hazards</li> </ul>	Purpose and Need  Electrical Reliability Biological Resources  Fire and Fuels Management	August 26, 2008, public scoping meeting



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<b>Appendix - Energia Sierra Juarez Project EIS - Stakeholder Comment Log</b>			
<b>Stakeholder Name, Affiliation, and Role on Project</b>	<b>Concerns/Comments</b>	<b>Resource Topic to be Addressed in EIS</b>	<b>Comment Source</b>
Bill Powers, Power Plant Working Group  Role: Environmental Group	<ul style="list-style-type: none"> <li>• Discuss indirect impacts of increased capacity on SWPL due to lack of capacity to handle the proposed project's power supply.</li> <li>• Discuss effects of the proposed power offsetting power from other sources (e.g., by taking priority over the Mexicali Power Plant)</li> <li>• Prepare an EIS in order to provide greater validity to the assessment, in consideration of the controversy related to SWPL.</li> </ul>	Purpose and Need  Cumulative impacts  N/A	August 26, 2008, public scoping meeting
Aaron Quintanar, Border Power Plant Working Group  Role: Environmental Group	<ul style="list-style-type: none"> <li>• An EIS is required to provide a high level of assessment of impacts on endangered species, in particular the potential impacts on California condor and BHS corridor; need to discuss existing cross-border wildlife coordination efforts.</li> <li>• Assess secondary impacts of new roads, which can lead to urban sprawl</li> </ul>	Biological Resources    Land Use	August 26, 2008, public scoping meeting
Kevin Krekelberg, Citizens United for Sensible Power  Role: Environmental Group	<ul style="list-style-type: none"> <li>• Prepare an EIS, and obtain a clear project description with acreage, location, etc.</li> </ul>	Proposed Action and Alternatives	August 26, 2008, public scoping meeting
Jeffrey McKernan  Role: Individual	<ul style="list-style-type: none"> <li>• Visual simulations need to be realistic</li> <li>• Concerned that a foreign government could affect project reliability.</li> <li>• Prepare an EIS</li> </ul>	Visual Resources Electrical Reliability N/A	August 26, 2008, public scoping meeting
Karen McIntyre  Role: Individual	<ul style="list-style-type: none"> <li>• Turbines could significantly degrade the visual setting, thus reducing the quality of life for local residents.</li> <li>• Concerned that a foreign government could affect project reliability.</li> </ul>	Visual Resources Land Use Electrical Reliability	August 26, 2008, public scoping meeting



**Energia Sierra Juarez U.S. Transmission, LLC  
Scoping Report  
September 2009**

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<b>Appendix - Energia Sierra Juarez Project EIS - Stakeholder Comment Log</b>			
<b>Stakeholder Name, Affiliation, and Role on Project</b>	<b>Concerns/Comments</b>	<b>Resource Topic to be Addressed in EIS</b>	<b>Comment Source</b>
Laura McKernan Role: Individual	<ul style="list-style-type: none"><li>• Turbines could significantly degrade the visual setting, thus reducing the quality of life for local residents.</li></ul>	Visual Resources Land Use	August 26, 2008, public scoping meeting
Note: N/A – not applicable			







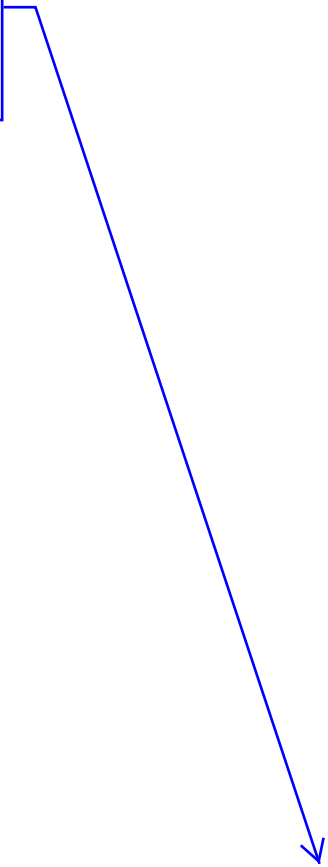
Appendix A.2 Notice of Intent to Prepare an Environmental Impact Statement  
(February 25, 2009)







PLEASE  
SEE  
BELOW



**NOTE: Energia Sierra Juarez  
U.S.  
Transmission, LLC, (ESJ)  
was formerly known as Baja  
U.S. Transmission, LLC**

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**DEPARTMENT OF ENERGY**

[OE Docket No. PP-334]

**Notice of Intent To Prepare an  
Environmental Impact Statement;  
Energia Sierra Juarez U.S.  
Transmission, LLC**

**AGENCY:** Department of Energy (DOE).

**ACTION:** Notice of Intent to Prepare an  
Environmental Impact Statement (EIS).

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**SUMMARY:** The Department of Energy (DOE) announces its intention to prepare an EIS on the proposed Federal action of granting a Presidential permit to construct a new electric transmission line across the U.S.-Mexico border in southeastern California. DOE has determined that issuance of a Presidential permit for the proposed



project would constitute a major Federal action that may have a significant effect upon the environment within the meaning of the National Environmental Policy Act of 1969 (NEPA). For this reason, DOE intends to prepare an EIS entitled *Energia Sierra Juarez Transmission Line Environmental Impact Statement* (DOE/EIS-0414) to address potential environmental impacts from the proposed action and reasonable alternatives. The EIS will be prepared in compliance with NEPA and applicable regulations, including DOE NEPA implementing regulations at 10 CFR Part 1021. Because of previous public participation activities, DOE does not plan to conduct additional scoping meetings for this EIS. However, any timely written comments submitted will be considered by DOE in determining the scope of the EIS.

**DATES:** As discussed below, the public participation process that DOE conducted following publication of a notice of intent to prepare an environmental assessment will serve as the scoping for this EIS. DOE will consider any additional comments received or postmarked by March 27, 2009 in defining the scope of the EIS. Comments received or postmarked after that date will be considered to the extent practicable.

**ADDRESSES:** Comments on the scope of the EIS and requests to be added to the document mailing list should be addressed to: Dr. Jerry Pell, Office of Electricity Delivery and Energy Reliability (OE-20), U.S. Department of Energy, 1000 Independence Avenue, SW., Washington, DC 20585; by electronic mail to [Jerry.Pell@hq.doe.gov](mailto:Jerry.Pell@hq.doe.gov); or by facsimile to 202-318-7761.

For general information on the DOE NEPA process contact: Ms. Carol M. Borgstrom, Director, Office of NEPA Policy and Compliance (GC-20), U.S. Department of Energy, 1000 Independence Avenue, SW., Washington, DC 20585; or by facsimile at 202-586-7031.

**FOR FURTHER INFORMATION CONTACT:** Dr. Jerry Pell, 202-586-3362, or [Jerry.Pell@hq.doe.gov](mailto:Jerry.Pell@hq.doe.gov). For general information on the DOE NEPA process, contact Ms. Carol M. Borgstrom at 202-586-4600 or leave a message at 800-472-2756.

**SUPPLEMENTARY INFORMATION:** Executive Order (EO) 10485, as amended by EO 12038, requires that a Presidential permit be issued by DOE before electric transmission facilities may be constructed, operated, maintained, or connected at the U.S. international border. The EO provides that a Presidential permit may be issued after

a finding that the proposed project is consistent with the public interest and after favorable recommendations from the U.S. Departments of State and Defense. In determining consistency with the public interest, DOE considers the environmental impacts of the proposed project under NEPA, determines the project's impact on electric reliability (including whether the proposed project would adversely affect the operation of the U.S. electric power supply system under normal and contingency conditions), and considers any other factors that DOE may find relevant to the public interest. The regulations implementing the EO have been codified at 10 CFR 205.320–205.329. DOE's issuance of a Presidential permit indicates that there is no Federal objection to the project, but does not mandate that the project be undertaken.

Energia Sierra Juarez U.S. Transmission, LLC (ESJ, formerly Baja Wind U.S. Transmission, LLC), has applied to DOE's Office of Electricity Delivery and Energy Reliability (OE) for a Presidential permit to construct either a double-circuit 230,000-volt (230-kV) or a single-circuit 500-kV transmission line on either lattice towers or steel monopoles. ESJ's proposed transmission line would connect wind turbines (the La Rumorosa Project) to be located in the vicinity of La Rumorosa, Baja California, Mexico, to the existing Southwest Powerlink (SWPL) 500-kV transmission line. The ESJ Presidential permit application, including associated maps and drawings, can be downloaded in its entirety from the DOE program Web site at [http://www.oe.energy.gov/permits\\_pending.htm](http://www.oe.energy.gov/permits_pending.htm) (see PP-334).

One portion of the proposed transmission project would consist of two miles of transmission located in Mexico that would be constructed, owned, operated, and maintained by a subsidiary of Sempra Energy Mexico and would be subject to the permitting requirements of the Mexican Government. The remaining portion of the proposed transmission project would consist of a one-mile transmission line constructed by ESJ within the United States on private land. The entire electrical output of the La Rumorosa Project (1250 megawatts) would be dedicated to the U.S. market and delivered using the proposed international transmission line. For reasons discussed below, the EIS will consider only impacts that occur inside the United States.

ESJ's proposed transmission line would connect to a substation to be constructed by the San Diego Gas & Electric Company in response to

requests by power suppliers to connect to the SWPL. The substation, to be known as the East County Substation, would be located just south of the SWPL right-of-way near the community of Jacumba, California, and would contain equipment for accepting interconnections at both the 230-kV and the 500-kV level. The 230-kV connection equipment would be located just to the west of the 500-kV connection equipment, both within the confines of the substation boundary. Accordingly, ESJ has identified two routing/voltage alternatives to coincide with interconnection at the 230-kV or at the 500-kV level.

### Agency Purpose and Need, Proposed Action, and Alternatives

The purpose and need for DOE's action is to decide whether to grant ESJ's application for a Presidential permit for the proposed international electric transmission line. DOE's proposed action is to issue a Presidential permit for the construction, operation, maintenance, and connection of the proposed international electric transmission line. If granted, the Presidential permit would authorize only the one-mile portion of the applicant's proposal that would be constructed and operated wholly within the United States.

Both of ESJ's proposed route alternatives would cross the U.S.-Mexico border at the same location. However, the route alternative identified as A1 in the Presidential permit application would be constructed at 500-kV and would be the eastern alternative; the other route alternative, identified as A2, would be constructed at 230-kV and be located to the west of the A1 alternative. Both alternatives would be located wholly within private property in eastern San Diego County near the unincorporated community of Jacumba. In addition to the alternatives proposed by ESJ, DOE will also consider the environmental impacts of a "No Action" alternative.

DOE originally considered an environmental assessment (EA) (to be titled *Baja Wind U.S. Transmission Environmental Assessment*) to be the appropriate level of review under NEPA. DOE published a Notice of Intent to Prepare an Environmental Assessment and to Conduct Public Scoping Meetings in the **Federal Register** on August 4, 2008 (73 FR 45218). In that notice DOE stated "if at any time during preparation of the EA DOE determines that an environmental impact statement (EIS) is needed \* \* \* DOE will consider any comments on the scope of the EA received during [the EA



**Appendix B Project Details**



## CONTENTS

- Appendix B.1 Alternative 2 and 3 Preliminary Plot Plans – Drawings P01 to P10, Revision 1 (June 2009)
- Appendix B.2 Alternative 2 and 3 Preliminary Grading Plans – Drawings C01 to C08, Revision 1 (June 2009)
- Appendix B.3 Alternative 4A and 4B Preliminary Plot Plans – Drawings P11 to P20, Revision 1 (June 2010)
- Appendix B.4 Alternative 4A and 4B Preliminary Grading Plans – Drawings C09 to C16, Revision 1 (June 2010)
- Appendix B.5 Transmission Tower and Monopole Details
- Appendix B.6 Estimated Equipment and Vehicle Requirements and Utilization Table
- Appendix B.7 County of San Diego Rural Fire Protection District letter (David Nissen, Division Chief) to County of San Diego Department of Planning and Land Use, indicating acceptance of the Fire Protection Plan (July 15, 2009). The date of the Fire Protection Plan that was reviewed is not indicated.
- Appendix B.8 Short Form Fire Protection Plan (Hunt Research Corporation 2009)
- Appendix B.9 County of San Diego Fire Authority letter (Paul Dawson, Fire Marshal) to County of San Diego Department of Planning and Land Use, indicating acceptance of the September 10, 2009 Fire Protection Plan (Nov 25, 2009)
- Appendix B.10 County of San Diego Rural Fire Protection District letter (June 17, 2011)
- Appendix B.11 County of San Diego Department of Planning and Land Use Memorandum from Jim Bennett, Groundwater Geologist, to Patrick Brown, Project Planner, regarding groundwater supply (March 4, 2010)
- Appendix B.12 County of San Diego Department of Planning and Land Use Form 399W, Project Water Availability Form, signed by the Jacumba Community Services District on July 8, 2010
- Appendix B.13 Phase I Environmental Site Assessment of 360 Acres of Vacant Land in Support of the Energia Sierra Juarez Project, Near Old Highway 80, Unincorporated San Diego County, California (AECOM, Inc. April 2009)
- Appendix B.14 FAA Determinations of No Hazard to Air Navigation (November 10, 2009)



Appendix B.1 Alternative 2 and 3 Preliminary Plot Plans – Drawings P01 to P10,  
Revision 1 (June 2009)







ESJ U.S.

Energia Sierra Juárez Gen-Tie Line Project  
San Diego County, California

June 2009

52573

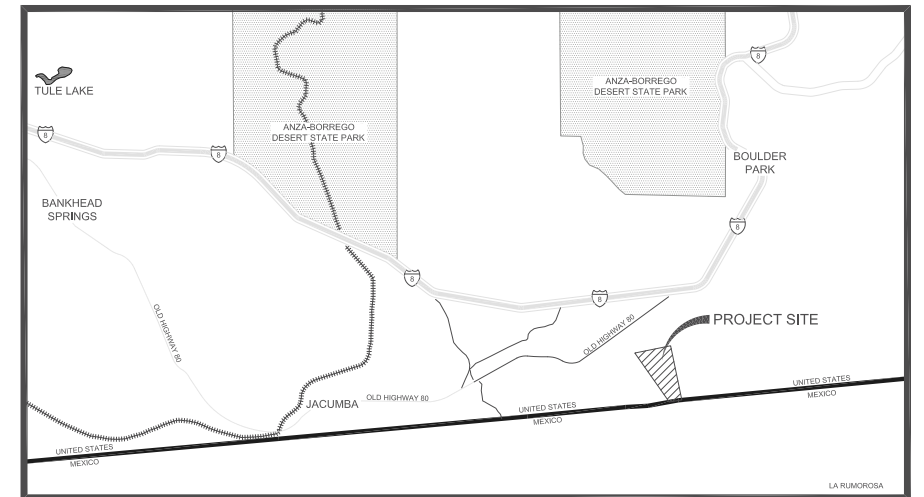
Preliminary Plot Plans

DRAWING LIST

DWG. NO.	REVISION	TITLE
P01	1	COVER-INDEX
P02	1	OVERALL LAYOUT SHEET
P03	1	230KV STEEL LATTICE TOWER PLAN & PROFILE
P04	1	230KV STEEL MONOPOLE PLAN & PROFILE
P05	1	230KV ALTERNATIVE PRELIMINARY PLOT PLAN SHEET 1 OF 2
P06	1	230KV ALTERNATIVE PRELIMINARY PLOT PLAN SHEET 2 OF 2
P07	1	500KV STEEL LATTICE TOWER PLAN & PROFILE
P08	1	500KV STEEL MONOPOLE PLAN & PROFILE
P09	1	500KV ALTERNATIVE PRELIMINARY PLOT PLAN SHEET 1 OF 2
P10	1	500KV ALTERNATIVE PRELIMINARY PLOT PLAN SHEET 2 OF 2

OWNER: ENERGIA SIERRA JUAREZ U.S. TRANSMISSION LLC. (ESJ U.S.)  
101 ASH STREET  
HQ #14  
SAN DIEGO, CA 92101  
(619) 696-2121

ENGINEER: BURNS & MCDONNELL  
9400 WARD PARKWAY  
KANSAS CITY, MO 64114  
(816) 333-9400



VICINITY MAP  
N.T.S.



PROJECT PARCEL #'s:  
APN 661-080-10  
APN 661-090-04  
APN 661-090-05  
APN 661-090-06

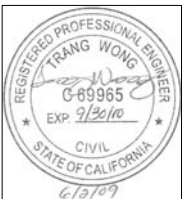
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APN 661-041-05

ACCESS PARCEL #'s:  
APN 661-041-03  
APN 661-041-02  
APN 661-080-08

PRELIMINARY - NOT  
FOR CONSTRUCTION

NOTE:  
DEPICTION OF SDG&E'S ECO SUBSTATION IS  
APPROXIMATE AND SUBJECT TO FINAL DESIGN BY SDG&E.

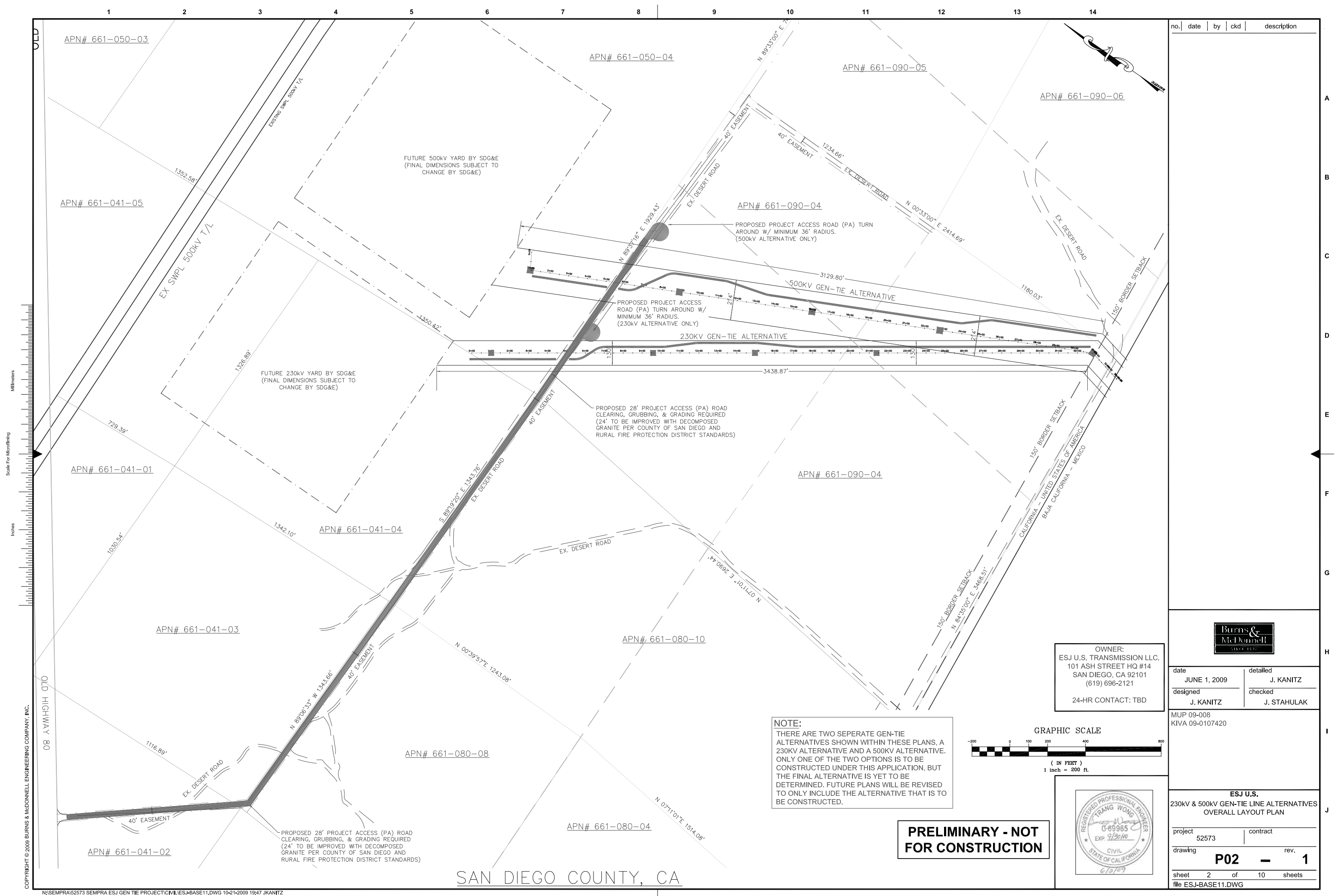
NOTE:  
THERE ARE TWO SEPERATE GEN-TIE  
ALTERNATIVES SHOWN WITHIN THESE PLANS, A  
230KV ALTERNATIVE AND A 500KV ALTERNATIVE.  
ONLY ONE OF THE TWO OPTIONS IS TO BE  
CONSTRUCTED UNDER THIS APPLICATION, BUT  
THE FINAL ALTERNATIVE IS YET TO BE  
DETERMINED. FUTURE PLANS WILL BE REVISED  
TO ONLY INCLUDE THE ALTERNATIVE THAT IS TO  
BE CONSTRUCTED.



ESJ U.S. Gen-Tie Line Project  
MUP 09-008  
KIVA 09-0107420

P01





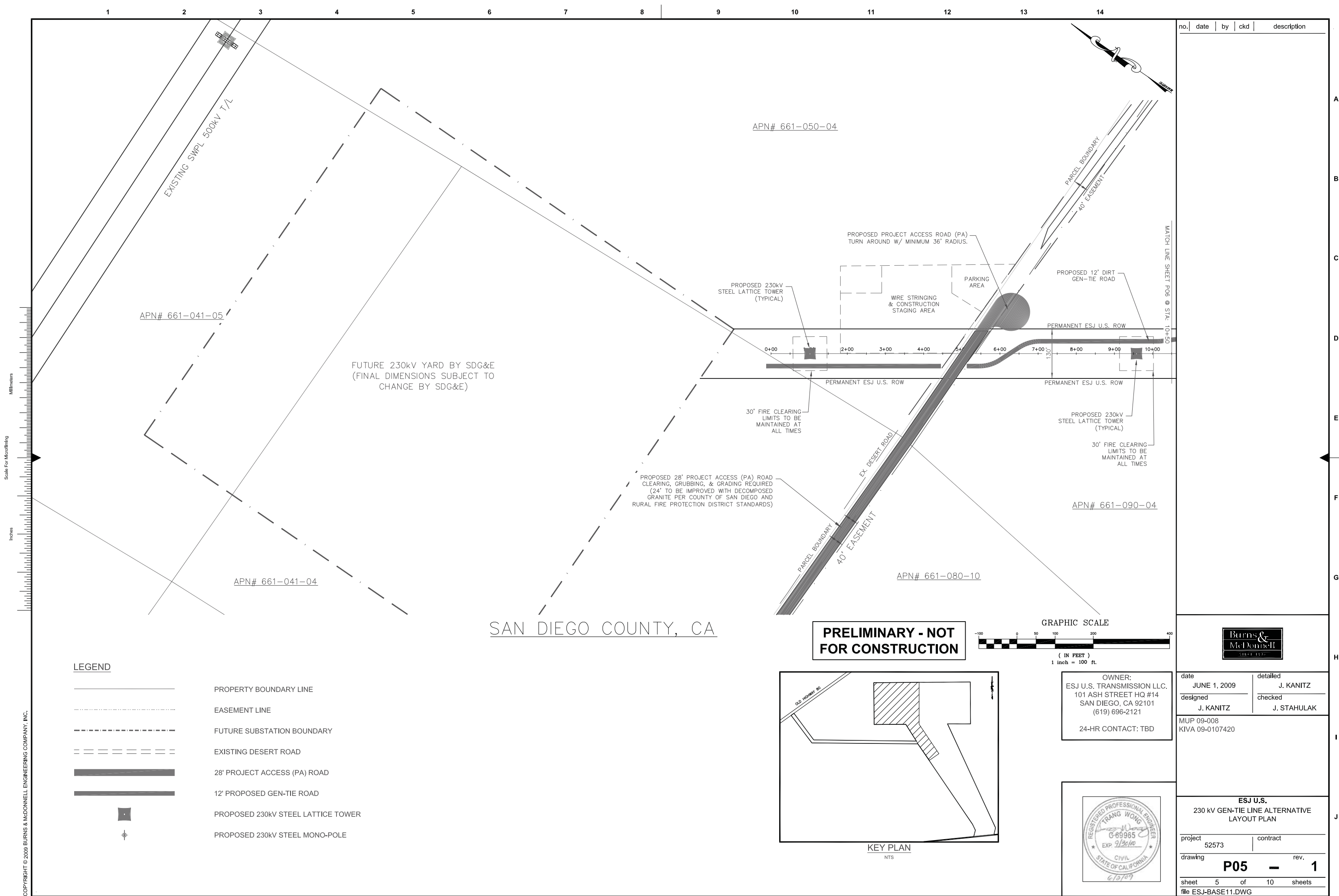




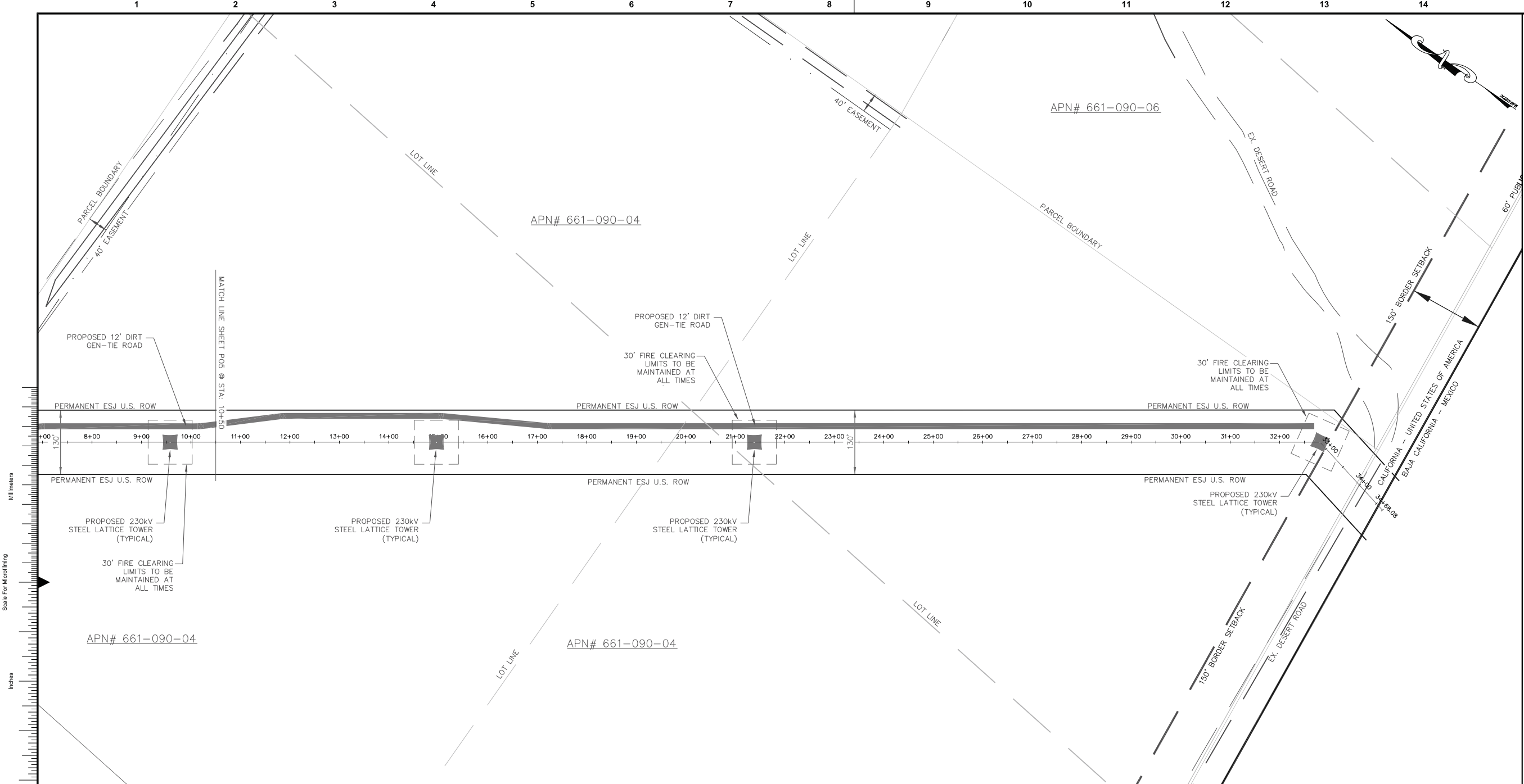












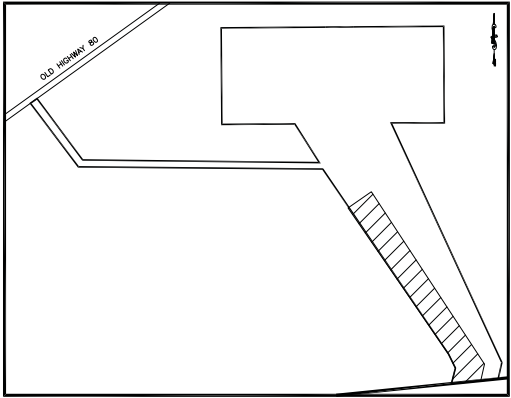
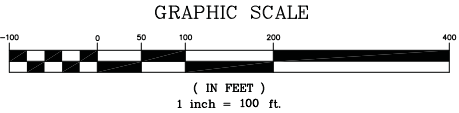
Scale For Microfilming  
Inches  
Millimeters

SAN DIEGO COUNTY, CA

LEGEND

- PROPERTY BOUNDARY LINE
- EASEMENT LINE
- FUTURE SUBSTATION BOUNDARY
- EXISTING DESERT ROAD
- 28' PROJECT ACCESS (PA) ROAD
- 12' PROPOSED GEN-TIE ROAD
- PROPOSED 230kV STEEL LATTICE TOWER
- PROPOSED 230kV STEEL MONO-POLE

PRELIMINARY - NOT  
FOR CONSTRUCTION



KEY PLAN  
NTS

OWNER:  
ESJ U.S. TRANSMISSION LLC.  
101 ASH STREET HQ #14  
SAN DIEGO, CA 92101  
(619) 696-2121  
  
24-HR CONTACT: TBD



no.		date		by		ckd		description	







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Scale For Manufacturing

Inches

Millimeters

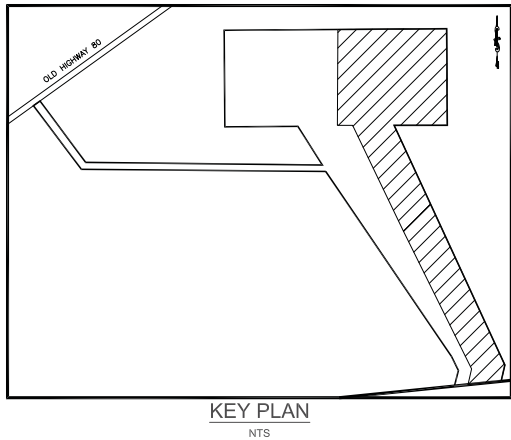
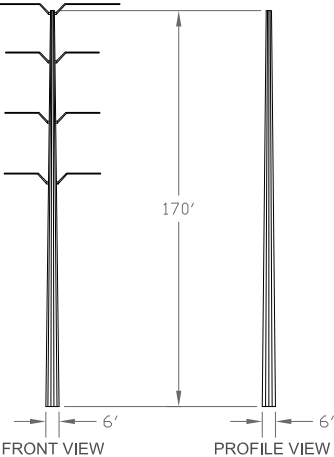
LEGEND

- PROPERTY BOUNDARY LINE
- EASEMENT LINE
- FUTURE SUBSTATION BOUNDARY
- EXISTING DESERT ROAD
- 28' PROJECT ACCESS (PA) ROAD
- 12' PROPOSED GEN-TIE ROAD
- PROPOSED 500kV STEEL MONOPOLE

500 kV MONOPOLE PROFILE

SCALE: 1"=200' HORIZONTAL  
1"=40' VERTICAL

TYPICAL 500kV STEEL MONOPOLE



PRELIMINARY - NOT  
FOR CONSTRUCTION

OWNER:  
ESJ U.S. TRANSMISSION LLC.  
101 ASH STREET HQ #14  
SAN DIEGO, CA 92101  
(619) 696-2121  
24-HR CONTACT: TBD

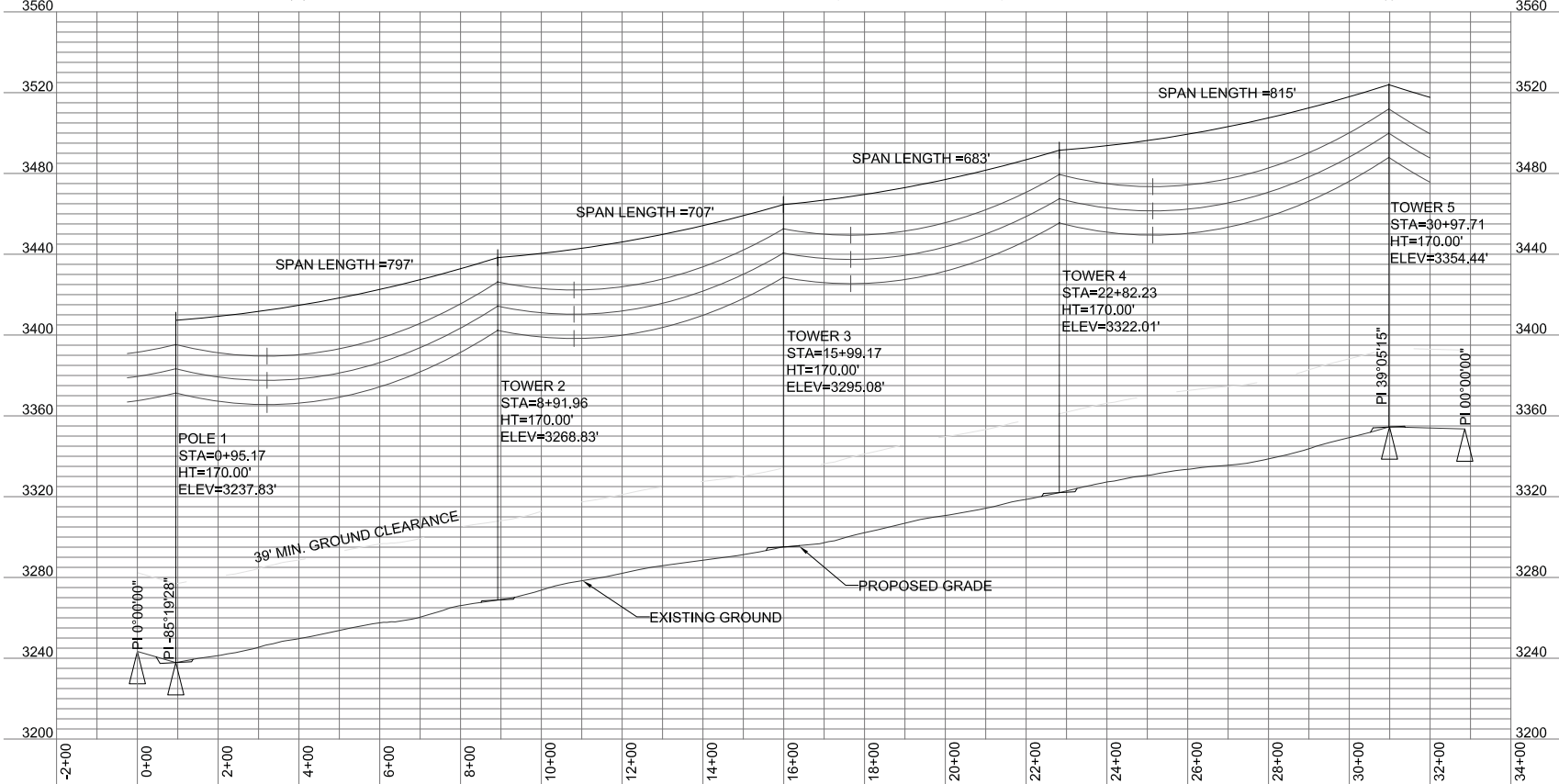
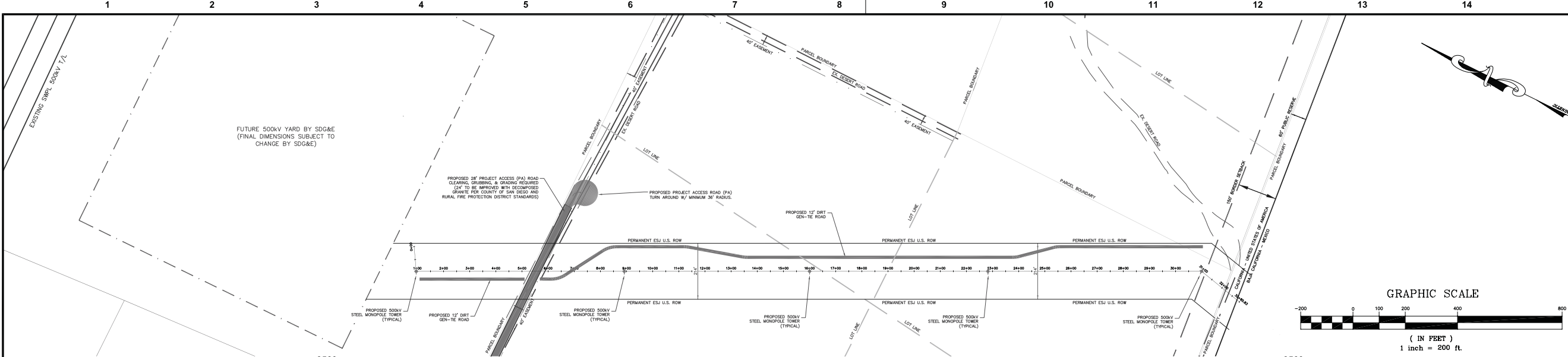


date JUNE 1, 2009  
designed J. KANITZ  
detailed J. KANITZ  
checked J. STAHULAK

MUP 09-008  
KIVA 09-0107420

ESJ U.S.  
500 kV GEN-TIE LINE ALTERNATIVE  
MONOPOLE TOWER PLAN/PROFILE

project 52573 contract  
drawing P08 rev. 1  
sheet 8 of 10 sheets  
file ESJ-BASE11.DWG



no. date by ckd description



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Scale For Microlining  
Inches  
Millimeters

LEGEND

	PROPERTY BOUNDARY LINE
	EASEMENT LINE
	FUTURE SUBSTATION BOUNDARY
	EXISTING DESERT ROAD
	PROJECT ACCESS (PA) ROAD
	PROPOSED GEN-TIE ROAD
	PROPOSED 500kV STEEL LATTICE TOWER
	PROPOSED 500kV STEEL MONO-POLE

SAN DIEGO COUNTY, CA

FUTURE 500kV YARD BY SDG&E  
(FINAL DIMENSIONS SUBJECT TO  
CHANGE BY SDG&E)

PROPOSED 28' PROJECT ACCESS (PA) ROAD  
CLEARING, GRUBBING, & GRADING REQUIRED  
(24' TO BE IMPROVED WITH DECOMPOSED  
GRANITE PER COUNTY OF SAN DIEGO AND  
RURAL FIRE PROTECTION DISTRICT STANDARDS)

PROPOSED PROJECT ACCESS ROAD (PA)  
TURN AROUND W/ MINIMUM 36' RADIUS.

WIRE STRINGING  
& CONSTRUCTION  
STAGING AREA

PARKING  
AREA

PERMANENT ESJ U.S. ROW

PERMANENT ESJ U.S. ROW

30' FIRE CLEARING  
LIMITS TO BE  
MAINTAINED AT  
ALL TIMES

PROPOSED 500kV  
STEEL LATTICE TOWER  
(TYPICAL)

PROPOSED 12' DIRT  
GEN-TIE ROAD

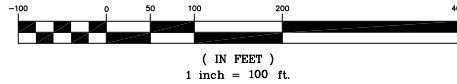
PROPOSED 500kV  
STEEL LATTICE TOWER  
(TYPICAL)

30' FIRE CLEARING  
LIMITS TO BE  
MAINTAINED AT  
ALL TIMES

PROPOSED 28' PROJECT ACCESS (PA) ROAD  
CLEARING, GRUBBING, & GRADING REQUIRED  
(24' TO BE IMPROVED WITH DECOMPOSED  
GRANITE PER COUNTY OF SAN DIEGO AND  
RURAL FIRE PROTECTION DISTRICT STANDARDS)

PRELIMINARY - NOT  
FOR CONSTRUCTION

GRAPHIC SCALE



OWNER:  
ESJ U.S. TRANSMISSION LLC.  
101 ASH STREET HQ #14  
SAN DIEGO, CA 92101  
(619) 696-2121  
  
24-HR CONTACT: TBD

date  
JUNE 1, 2009

detailed  
J. KANITZ

designed  
J. KANITZ

checked  
J. STAHULAK

MUP 09-008  
KIVA 09-0107420

ESJ U.S.  
500 KV GEN-TIE LINE ALTERNATIVE  
LAYOUT PLAN

project  
52573

contract

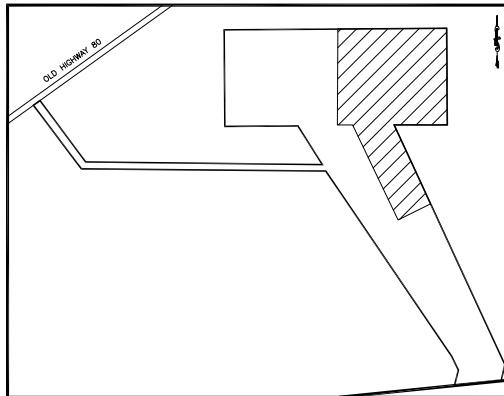
drawing

P09

rev.  
1

sheet 9 of 10 sheets

file ESJ-BASE11.DWG



KEY PLAN  
NTS









Appendix B.2 Alternative 2 and 3 Preliminary Grading Plans – Drawings C01 to C08,  
Revision 1 (June 2009)







ESJ U.S.

Energia Sierra Juárez Gen-Tie Line Project  
San Diego County, California

June 2009

52573

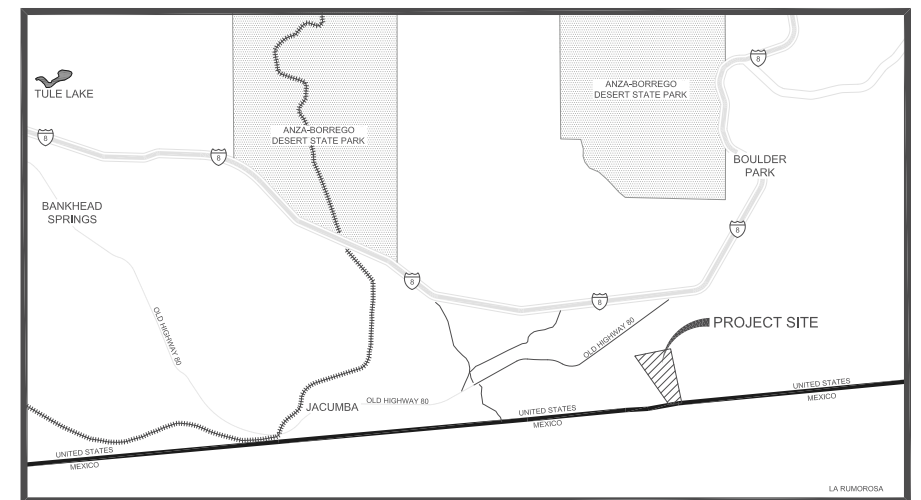
Preliminary Grading Plans

DRAWING LIST

DWG. NO.	REVISION	TITLE
C01	1	COVER-INDEX
C02	1	OVERALL PRELIM. GRADING & EROSION CONTROL PLAN
C03	1	230KV ALTERNATIVE PRELIM. GRADING & EROSION CONTROL PLAN SHEET 1 OF 2
C04	1	230KV ALTERNATIVE PRELIM. GRADING & EROSION CONTROL PLAN SHEET 2 OF 2
C05	1	500KV ALTERNATIVE PRELIM. GRADING & EROSION CONTROL PLAN SHEET 1 OF 2
C06	1	500KV ALTERNATIVE PRELIM. GRADING & EROSION CONTROL PLAN SHEET 2 OF 2
C07	1	GRADING & EROSION CONTROL DETAILS
C08	1	PROJECT DRAINAGE MAP

OWNER: ENERGIA SIERRA JUAREZ U.S. TRANSMISSION LLC. (ESJ U.S.)  
101 ASH STREET  
HQ #14  
SAN DIEGO, CA 92101  
(619) 696-2121

ENGINEER: BURNS & MCDONNELL  
9400 WARD PARKWAY  
KANSAS CITY, MO 64114  
(816) 333-9400



VICINITY MAP  
N.T.S.



PROJECT PARCEL #'s:  
APN 661-080-10  
APN 661-090-04  
APN 661-090-05  
APN 661-090-06

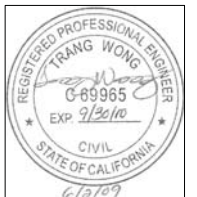
ECO SUBSTATION PARCEL #'s:  
APN 661-050-04  
APN 661-041-04  
APN 661-041-05

ACCESS PARCEL #'s:  
APN 661-041-03  
APN 661-041-02  
APN 661-080-08

PRELIMINARY - NOT  
FOR CONSTRUCTION

NOTE:  
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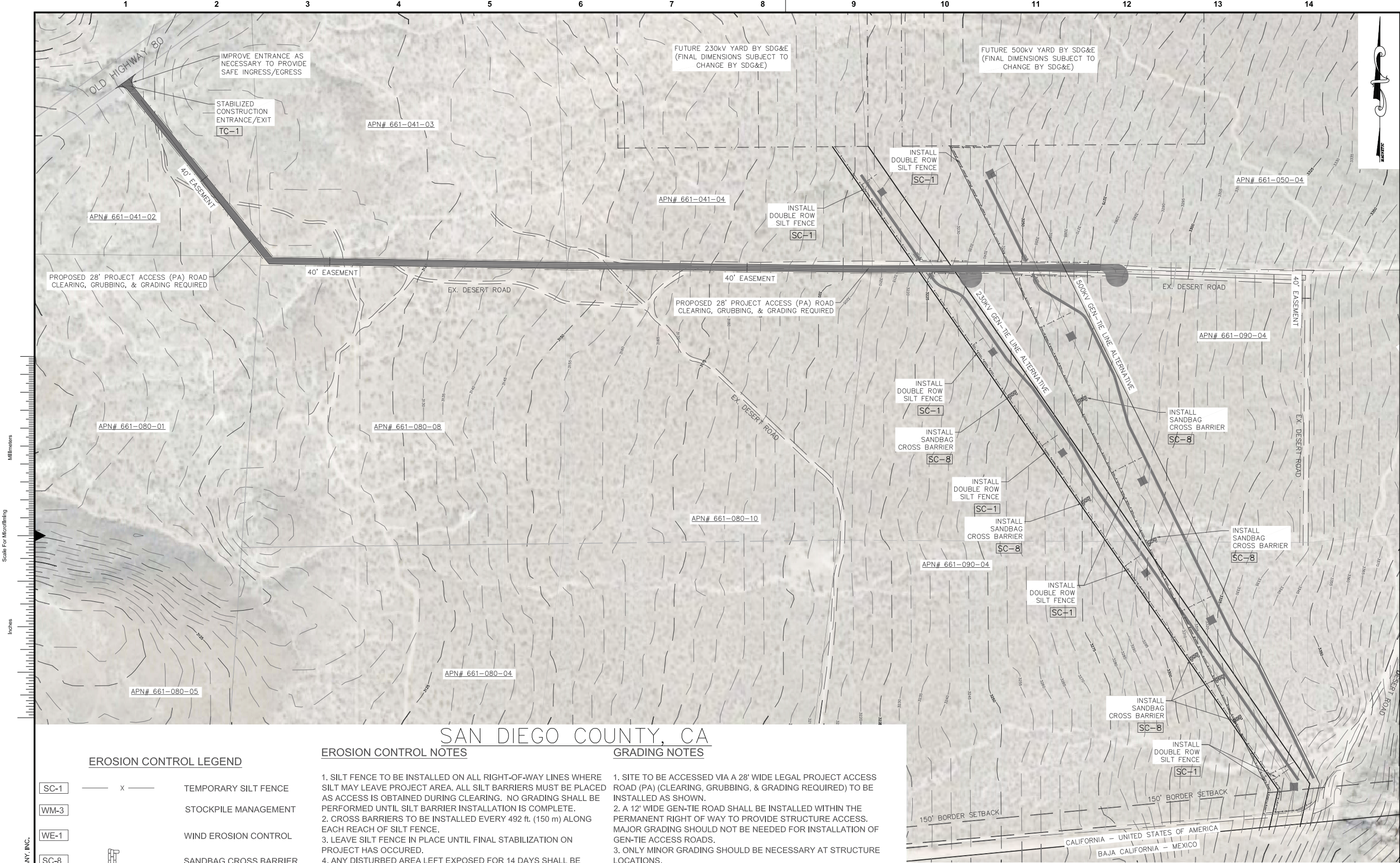
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ESJ U.S. Gen-Tie Line Project  
MUP 09-008  
KIVA 09-0107420

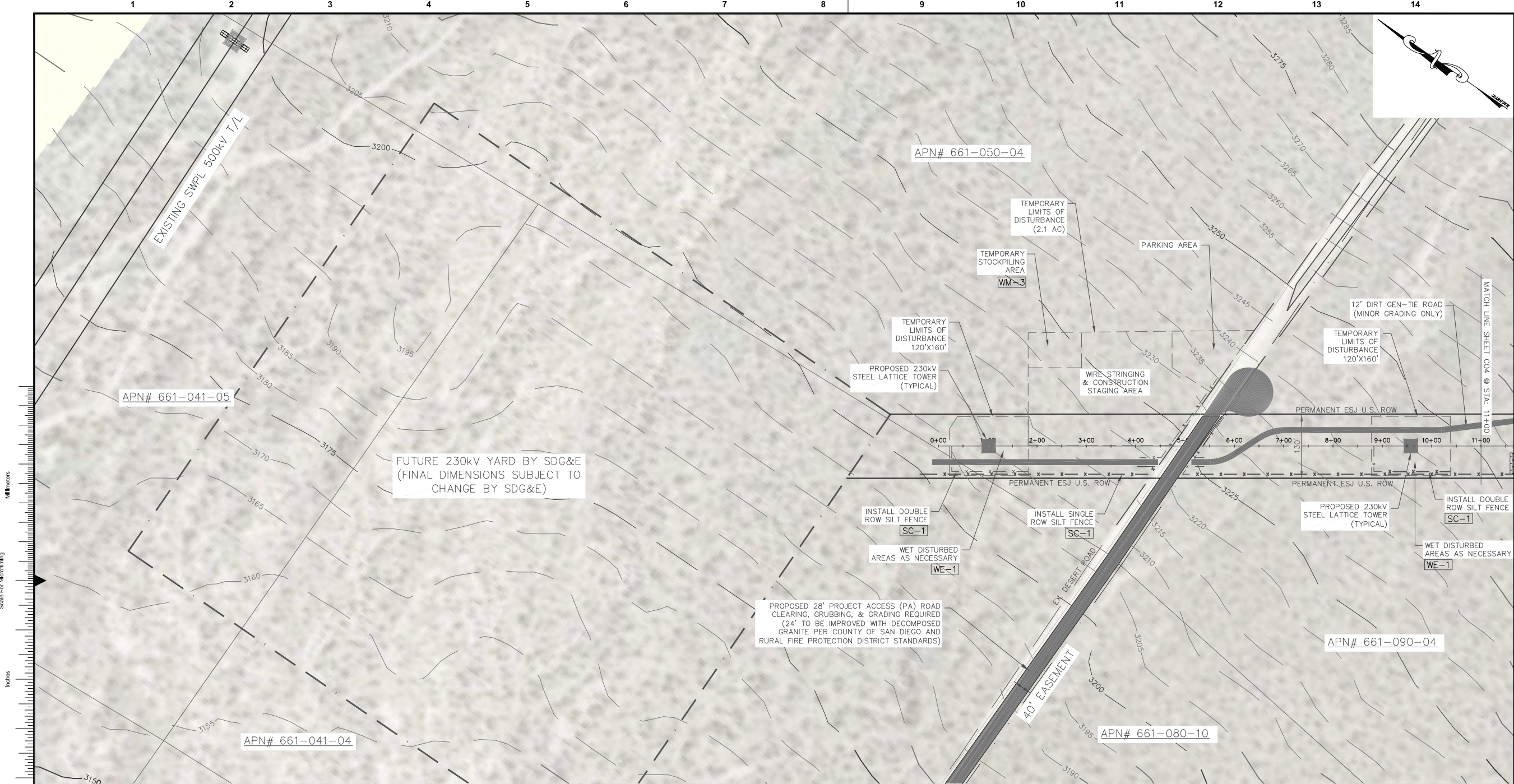
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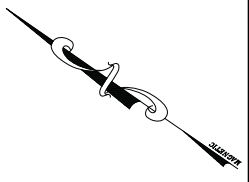


no.		date	by	ckd	description	
						
date JUNE 1, 2009			detailed J. KANITZ			
designed J. KANITZ			checked J. STAHULAK			
MUP 09-008 KIVA 09-0107420						
ESJ U.S. 230kV & 500kV GEN-TIE LINE ALTERNATIVES OVERALL PRELIMINARY GRADING & EROSION CONTROL PLAN						
project 52573			contract			
drawing C02			rev. —		1	
sheet 2		of 8		sheets		
file ESJ-BASE11.DWG						





Millimeters  
Scale For Detailing  
Inches



no.	date	by	ckd	description
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EROSION CONTROL LEGEND

SC-1	x	TEMPORARY SILT FENCE
WM-3		STOCKPILE MANAGEMENT
WE-1		WIND EROSION CONTROL
SC-8		SANDBAG CROSS BARRIER
TC-1		STABILIZED CONSTRUCTION ENTRANCE/EXIT

\*SEE SHEET C07 FOR GRADING & EROSION CONTROL DETAILS

**NOTE:**  
THIS PLAN IS PROVIDED TO ALLOW FOR FULL AND ADEQUATE DISCRETIONARY REVIEW OF A PROPOSED DEVELOPMENT PROJECT. THE PROPERTY OWNER ACKNOWLEDGES THAT ACCEPTANCE OR APPROVAL OF THIS PLAN DOES NOT CONSTITUTE AN APPROVAL TO PERFORM ANY GRADING SHOWN HEREON, AND AGREES TO OBTAIN VALID GRADING PERMISSIONS BEFORE COMMENCING SUCH ACTIVITY.

EROSION CONTROL NOTES

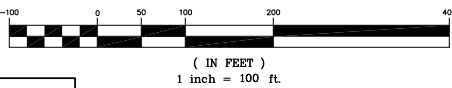
1. SILT FENCE TO BE INSTALLED ON ALL RIGHT-OF-WAY LINES WHERE SILT MAY LEAVE PROJECT AREA. ALL SILT BARRIERS MUST BE PLACED AS ACCESS IS OBTAINED DURING CLEARING. NO GRADING SHALL BE PERFORMED UNTIL SILT BARRIER INSTALLATION IS COMPLETE.
2. CROSS BARRIERS TO BE INSTALLED EVERY 492 ft. (150 m) ALONG EACH REACH OF SILT FENCE.
3. LEAVE SILT FENCE IN PLACE UNTIL FINAL STABILIZATION ON PROJECT HAS OCCURED.
4. ANY DISTURBED AREA LEFT EXPOSED FOR 14 DAYS SHALL BE STABILIZED WITH MULCH OR TEMPORARY SEEDING.
5. EROSION CONTROL MEASURES TO BE MAINTAINED AT ALL TIMES.
6. ALL SLOPES STEEPER THAN 3:1 SHALL BE COVERED WITH EROSION CONTROL BLANKET.
7. TO REDUCE WIND EROSION, ALL TEMPORARY DISTURBED AREAS SHALL BE WETTED AS NECESSARY.
8. ALL TEMPORARILY DISTURBED AREAS SHALL BE RE-VEGETATED AFTER CONSTRUCTION IN ACCORDANCE WITH THE STORMWATER POLLUTION PREVENTION PLAN, OR AS REQUIRED BY SAN DIEGO COUNTY. A 30' BUFFER WILL REMAIN UNVEGETATED AROUND EACH TOWER FOR FIRE PROTECTION.
9. ALL EROSION CONTROL MEASURES SHALL BE INSTALLED AND MAINTAINED AS SPECIFIED BY THE CALIFORNIA DEPARTMENT OF TRANSPORTATION CONSTRUCTION SITE BMP MANUAL.

GRADING NOTES

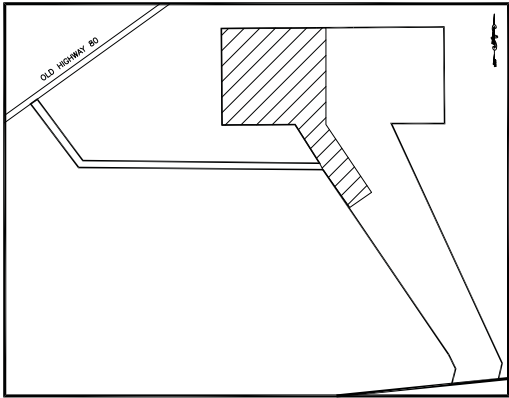
1. SITE TO BE ACCESSED VIA A 28' WIDE LEGAL PROJECT ACCESS ROAD (PA) (CLEARING, GRUBBING, & GRADING REQUIRED) TO BE INSTALLED AS SHOWN.
2. A 12' WIDE GEN-TIE ROAD SHALL BE INSTALLED WITHIN THE PERMANENT RIGHT OF WAY TO PROVIDE STRUCTURE ACCESS. MAJOR GRADING SHOULD NOT BE NEEDED FOR INSTALLATION OF GEN-TIE ACCESS ROADS.
3. ONLY MINOR GRADING SHOULD BE NECESSARY AT STRUCTURE LOCATIONS. INSTALL SILT BARRIER ON THE DOWNHILL SIDE OF DISTURBED AREAS.
4. SEE EARTHWORK SUMMARY TABLE ON SHEET C01 FOR A SUMMARY OF THE PROJECT EARTHWORK.
5. TOPOGRAPHIC INFORMATION BASED ON U.S.G.S. NATIONAL ELEVATION DATA SET.

SAN DIEGO COUNTY, CA

GRAPHIC SCALE



**PRELIMINARY - NOT FOR CONSTRUCTION**



KEY PLAN  
NTS

OWNER:  
ESJ U.S. TRANSMISSION LLC.  
101 ASH STREET HQ #14  
SAN DIEGO, CA 92101  
(619) 696-2121  
  
24-HR CONTACT: TBD



date	JUNE 1, 2009	detailed	J. KANITZ
designed	J. KANITZ	checked	J. STAHULAK

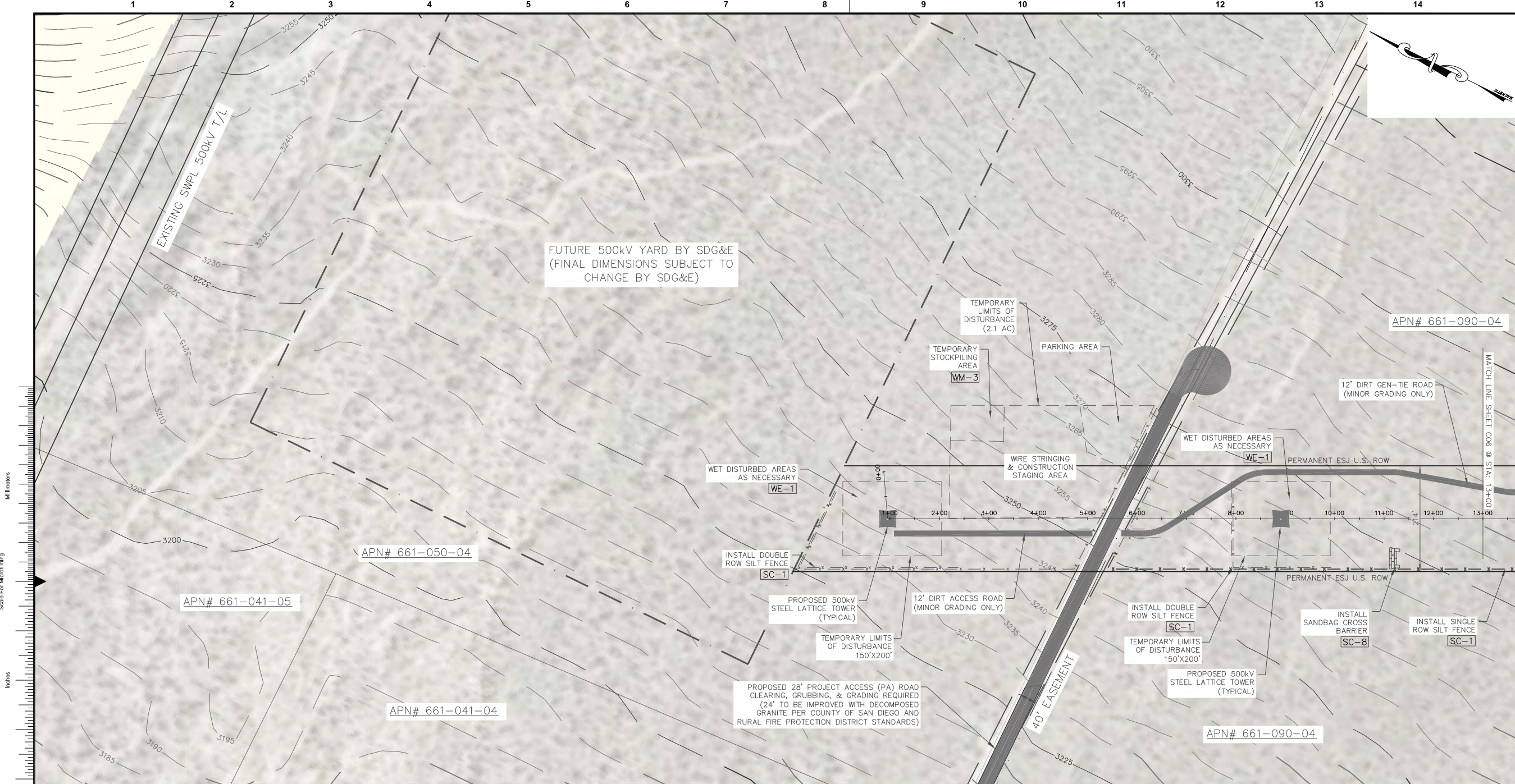
MUP 09-008  
KIVA 09-0107420

ESJ U.S. 230 KV GEN-TIE LINE ALTERNATIVE PRELIMINARY GRADING & EROSION CONTROL PLAN			
project	52573	contract	
drawing	C03		rev. 1
sheet	3	of	8 sheets
file	ESJ-BASE11.DWG		









Scale For Detailing  
Inches  
Millimeters

#### EROSION CONTROL LEGEND

SC-1	x	TEMPORARY SILT FENCE
WM-3		STOCKPILE MANAGEMENT
WE-1		WIND EROSION CONTROL
SC-8		SANDBAG CROSS BARRIER
TC-1		STABILIZED CONSTRUCTION ENTRANCE/EXIT

\*SEE SHEET C07 FOR GRADING & EROSION CONTROL DETAILS

#### NOTE:

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#### EROSION CONTROL NOTES

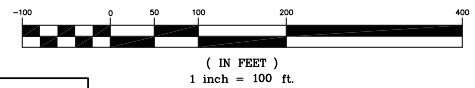
1. SILT FENCE TO BE INSTALLED ON ALL RIGHT-OF-WAY LINES WHERE SILT MAY LEAVE PROJECT AREA. ALL SILT BARRIERS MUST BE PLACED AS ACCESS IS OBTAINED DURING CLEARING. NO GRADING SHALL BE PERFORMED UNTIL SILT BARRIER INSTALLATION IS COMPLETE.
2. CROSS BARRIERS TO BE INSTALLED EVERY 492 ft. (150 m) ALONG EACH REACH OF SILT FENCE.
3. LEAVE SILT FENCE IN PLACE UNTIL FINAL STABILIZATION ON PROJECT HAS OCCURED.
4. ANY DISTURBED AREA LEFT EXPOSED FOR 14 DAYS SHALL BE STABILIZED WITH MULCH OR TEMPORARY SEEDING.
5. EROSION CONTROL MEASURES TO BE MAINTAINED AT ALL TIMES.
6. ALL SLOPES STEEPER THAN 3:1 SHALL BE COVERED WITH EROSION CONTROL BLANKET.
7. TO REDUCE WIND EROSION, ALL TEMPORARY DISTURBED AREAS SHALL BE WETTED AS NECESSARY.
8. ALL TEMPORARILY DISTURBED AREAS SHALL BE RE-VEGETATED AFTER CONSTRUCTION IN ACCORDANCE WITH THE STORMWATER POLLUTION PREVENTION PLAN, OR AS REQUIRED BY SAN DIEGO COUNTY. A 30' BUFFER WILL REMAIN UNVEGETATED AROUND EACH TOWER FOR FIRE PROTECTION.
9. ALL EROSION CONTROL MEASURES SHALL BE INSTALLED AND MAINTAINED AS SPECIFIED BY THE CALIFORNIA DEPARTMENT OF TRANSPORTATION CONSTRUCTION SITE BMP MANUAL.

#### GRADING NOTES

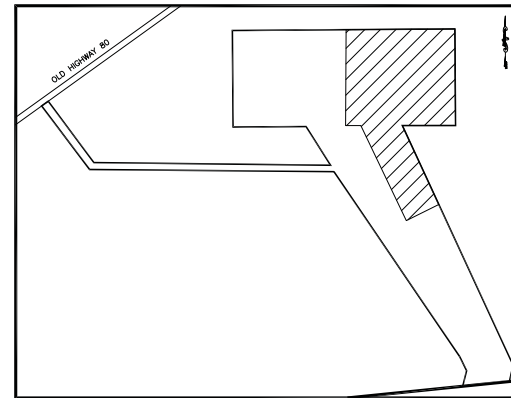
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2. A 12' WIDE GEN-TIE ROAD SHALL BE INSTALLED WITHIN THE PERMANENT RIGHT OF WAY TO PROVIDE STRUCTURE ACCESS. MAJOR GRADING SHOULD NOT BE NEEDED FOR INSTALLATION OF GEN-TIE ACCESS ROADS.
3. ONLY MINOR GRADING SHOULD BE NECESSARY AT STRUCTURE LOCATIONS. INSTALL SILT BARRIER ON THE DOWNHILL SIDE OF DISTURBED AREAS.
4. SEE EARTHWORK SUMMARY TABLE ON SHEET C01 FOR A SUMMARY OF THE PROJECT EARTHWORK.
5. TOPOGRAPHIC INFORMATION BASED ON U.S.G.S. NATIONAL ELEVATION DATA SET.

## SAN DIEGO COUNTY, CA

#### GRAPHIC SCALE

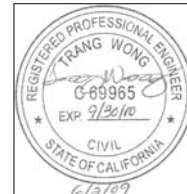


**PRELIMINARY - NOT  
FOR CONSTRUCTION**



KEY PLAN  
NTS

OWNER:  
ESJ U.S. TRANSMISSION LLC.  
101 ASH STREET HQ #14  
SAN DIEGO, CA 92101  
(619) 696-2121  
24-HR CONTACT: TBD



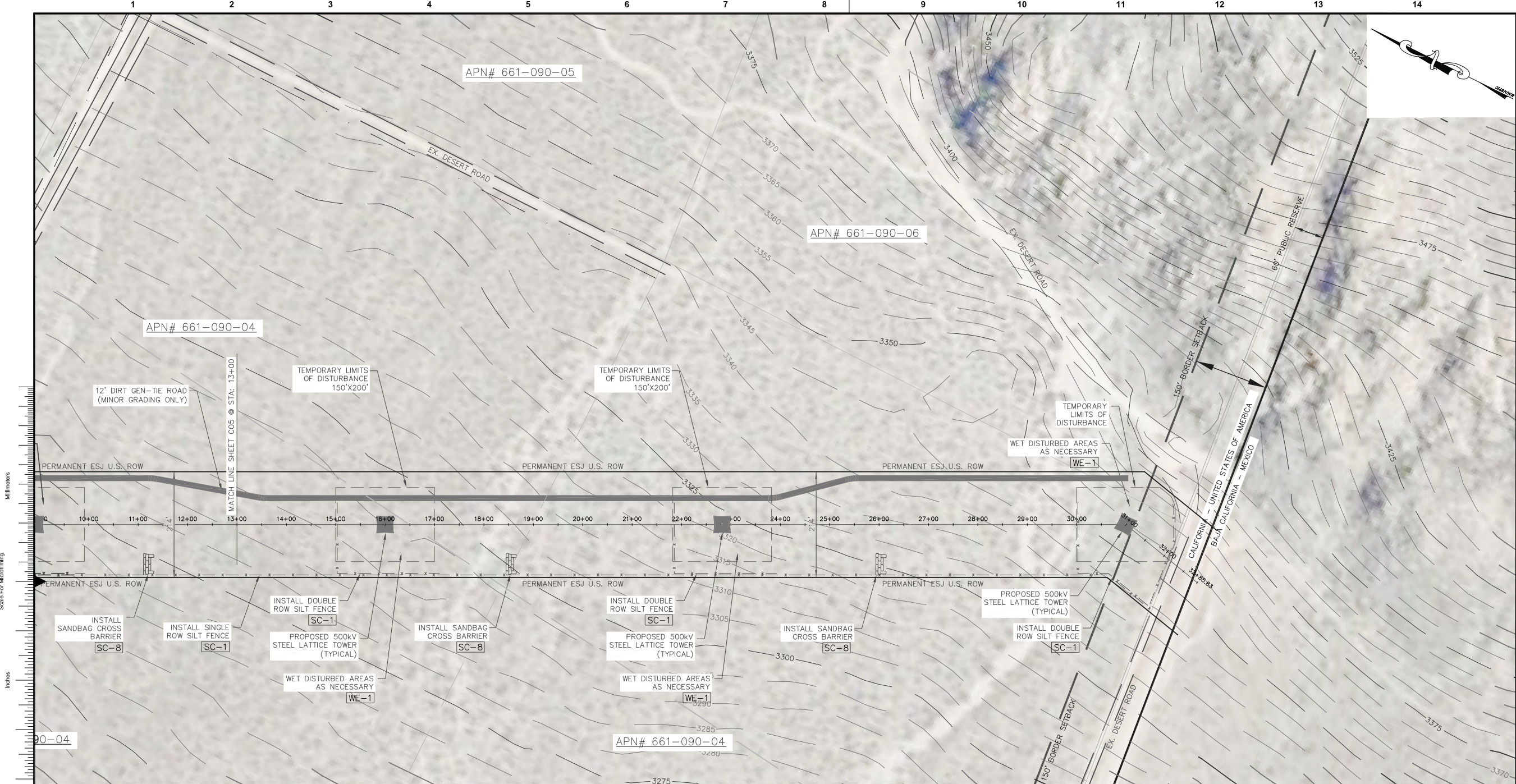
date JUNE 1, 2009	detailed J. KANITZ
designed J. KANITZ	checked J. STAHULAK

MUP 09-008  
KIVA 09-0107420

**ESJ U.S.**  
500 kV GEN-TIE LINE ALTERNATIVE  
PRELIMINARY GRADING & EROSION  
CONTROL PLAN

project 52573	contract
drawing <b>C05</b>	rev. <b>1</b>
sheet 5	of 8
file ESJ-BASE11.DWG	sheets





### EROSION CONTROL LEGEND

SC-1	x	TEMPORARY SILT FENCE
WM-3		STOCKPILE MANAGEMENT
WE-1		WIND EROSION CONTROL
SC-8		SANDBAG CROSS BARRIER
TC-1		STABILIZED CONSTRUCTION ENTRANCE/EXIT

\*SEE SHEET C07 FOR GRADING & EROSION CONTROL DETAILS

**NOTE:**  
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### EROSION CONTROL NOTES

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- CROSS BARRIERS TO BE INSTALLED EVERY 492 ft. (150 m) ALONG EACH REACH OF SILT FENCE.
- LEAVE SILT FENCE IN PLACE UNTIL FINAL STABILIZATION ON PROJECT HAS OCCURED.
- ANY DISTURBED AREA LEFT EXPOSED FOR 14 DAYS SHALL BE STABILIZED WITH MULCH OR TEMPORARY SEEDING.
- EROSION CONTROL MEASURES TO BE MAINTAINED AT ALL TIMES.
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### GRADING NOTES

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- TOPOGRAPHIC INFORMATION BASED ON U.S.G.S. NATIONAL ELEVATION DATA SET.

### PRELIMINARY - NOT FOR CONSTRUCTION

### GRAPHIC SCALE

( IN FEET )  
1 inch = 100 ft.

**OWNER:**  
ESJ U.S. TRANSMISSION LLC.  
101 ASH STREET HQ #14  
SAN DIEGO, CA 92101  
(619) 696-2121  
24-HR CONTACT: TBD

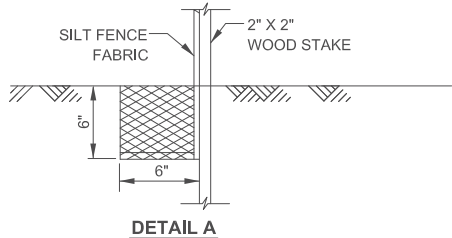
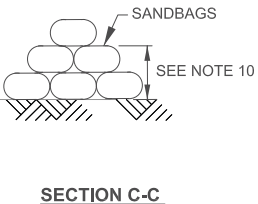
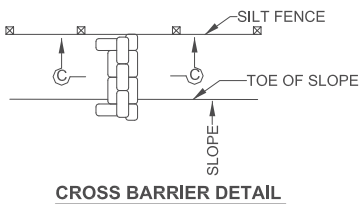
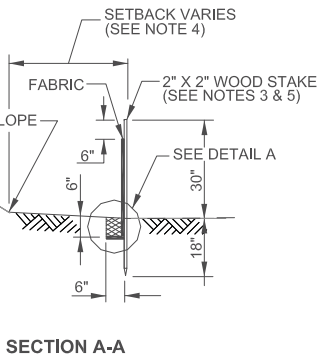
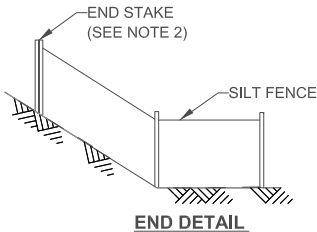
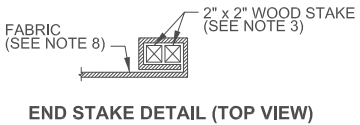
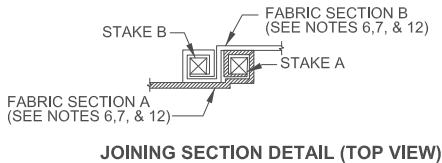
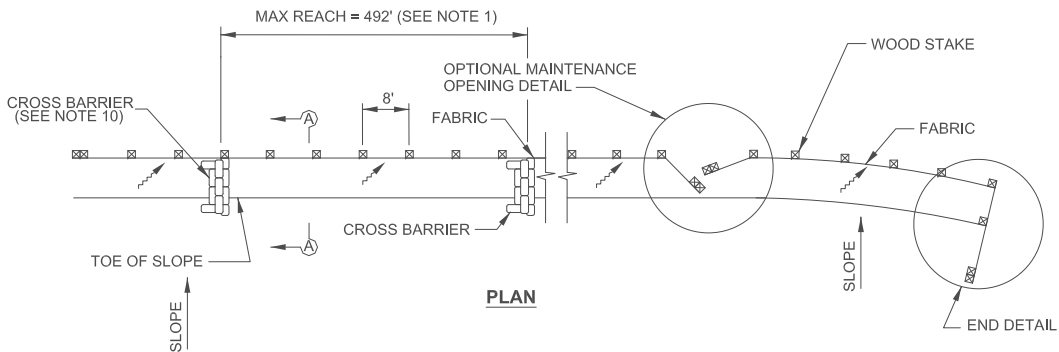
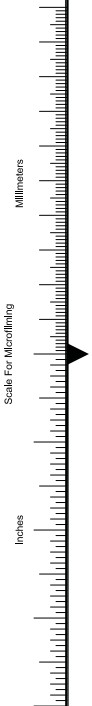
date	JUNE 1, 2009	detailed	J. KANITZ
designed	J. KANITZ	checked	J. STAHULAK
MUP 09-008 KIVA 09-0107420			

<b>ESJ U.S.</b> 500 kV GEN-TIE LINE ALTERNATIVE PRELIMINARY GRADING & EROSION CONTROL PLAN			
project	52573	contract	
drawing	<b>C06</b>	rev.	<b>1</b>
sheet	6	of	8
file ESJ-BASE11.DWG			

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N:\SEMPRA\52573 SEMPRA ESJ GEN TIE PROJECT\CIVIL\ESJ-BASE11.DWG 10-21-2009 19:33 JKANITZ

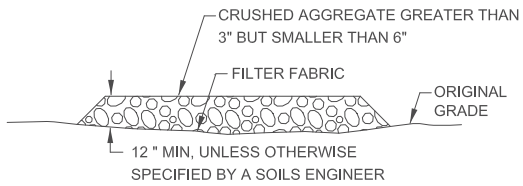




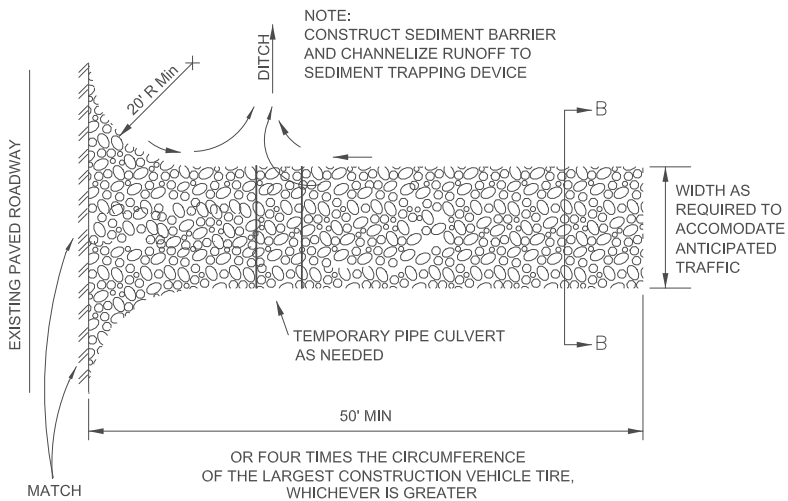
STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION  
SC-1 **TEMPORARY LINEAR SEDIMENT BARRIER  
(TYPE SILT FENCE)**  
NO SCALE

**NOTES**

1. CONSTRUCT THE LENGTH OF EACH REACH SO THAT THE CHANGE IN BASE ELEVATION ALONG THE REACH DOES NOT EXCEED  $\frac{1}{3}$  THE HEIGHT OF THE LINEAR BARRIER, IN NO CASE SHALL THE REACH LENGTH EXCEED 492'.
2. THE LAST 8' OF FENCE SHALL BE TURNED UP SLOPE.
3. STAKE DIMENSIONS ARE NOMINAL.
4. DIMENSIONS MAY VARY TO FIT FIELD CONDITION.
5. STAKES SHALL BE SPACED AT 8' MAXIMUM AND SHALL BE POSITIONED ON DOWNSTREAM SIDE OF FENCE.
6. STAKES TO OVERLAP AND FENCE FABRIC TO FOLD AROUND EACH STAKE ONE FULL TURN. SECURE FABRIC TO STAKE WITH 4 STAPLES.
7. STAKES SHALL BE DRIVEN TIGHTLY TOGETHER TO PREVENT POTENTIAL FLOW-THROUGH OF SEDIMENT AT JOINT. THE TOPS OF THE STAKES SHALL BE SECURED WITH WIRE.
8. FOR END STAKE, FENCE FABRIC SHALL BE FOLDED AROUND TWO STAKES ONE FULL TURN AND SECURED WITH 4 STAPLES.
9. MINIMUM 4 STAPLES PER STAKE. DIMENSIONS SHOWN ARE TYPICAL..
10. CROSS BARRIERS SHALL BE A MINIMUM OF  $\frac{1}{3}$  AND A MAXIMUM OF  $\frac{1}{2}$  THE HEIGHT OF THE LINEAR BARRIER.
11. MAINTENANCE OPENINGS SHALL BE CONSTRUCTED IN A MANNER TO ENSURE SEDIMENT REMAINS BEHIND SILT FENCE.
12. JOINING SECTIONS SHALL NOT BE PLACED AT SUMP LOCATIONS.
13. SANDBAG ROWS AND LAYERS SHALL BE OFFSET TO ELIMINATE GAPS.



**SECTION B-B  
NTS**



**PLAN  
NTS**

STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION  
TC-1 **STABILIZED CONSTRUCTION ENTRANCE/EXIT  
(TYPE I)**  
NO SCALE



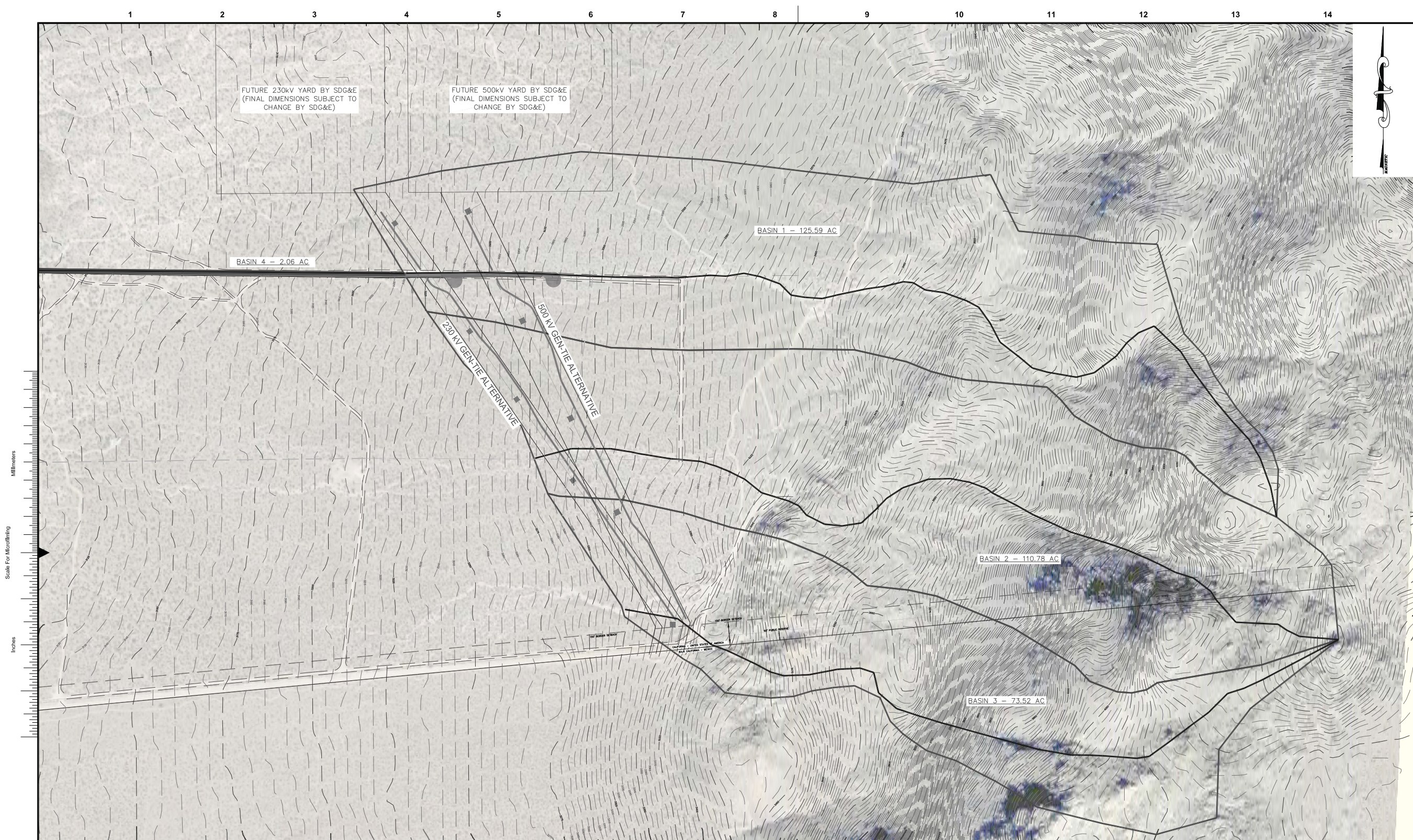
date JUNE 1, 2009	detailed J. KANITZ
designed J. KANITZ	checked J. STAHULAK

MUP 09-008  
KIVA 09-0107420



ESJ U.S. GEN-TIE LINE GRADING & EROSION CONTROL DETAILS	
project 52573	contract
drawing <b>C07</b>	rev. <b>0</b>
sheet 7	of 8 sheets
file ESJ-BASE11.DWG	





no.	date	by	ckd	description
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date JUNE 1, 2009	detailed J. KANITZ
designed J. KANITZ	checked J. STAHULAK

MUP 09-008
KIVA 09-0107420

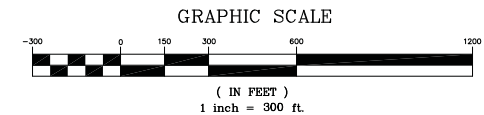
<p align="center"><b>ESJ U.S.</b></p> <p align="center">PROJECT DRAINAGE MAP</p>
--

project	52573	contract	
drawing	<b>C08</b>	rev.	<b>1</b>
sheet	8	of	8 sheets
file ESJ-BASE11.DWG			

<u>BASIN ANALYSIS</u>				
<u>BASIN #</u>	<u>AREA(Ac)</u>	<u>Post Dev CN</u>	<u>10 YR PRE-DEVELOPED Q (c.f.s)</u>	<u>10 YR POST-DEVELOPED Q (c.f.s)</u>
1.	146.01	64.3	10.04	10.04
2.	159.53	72.5	40.03	40.03
3.	92.27	75.8	34.62	34.62
4.	2.06	67.3	.049	.197

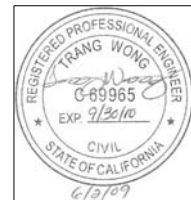
**NOTE:** THE PROPOSED DEVELOPMENT HAS NO SIGNIFICANT DOWNSTREAM IMPACT. THE SMALL AMOUNT OF IMPERVIOUS SURFACE ADDED IS NOT LARGE ENOUGH TO AFFECT THE POST-DEVELOPED CN, AND THEREFORE DOES NOT INCREASE THE POST-DEVELOPED RUNOFF (Q). FOR FURTHER INFORMATION REFER TO THE FULL HYDROLOGY REPORT.

SAN DIEGO COUNTY, CA



**OWNER:**  
**ESJ U.S. TRANSMISSION LLC.**  
**101 ASH STREET HQ #14**  
**SAN DIEGO, CA 92101**  
**(619) 696-2121**

**24-HR CONTACT: TBD**





Appendix B.3 Alternative 4A and 4B Preliminary Plot Plans – Drawings P11 to P20,  
Revision 1 (June 2010)







# ESJ U.S.

## Energia Sierra Juárez Gen-Tie Line Alternative Project San Diego County, California

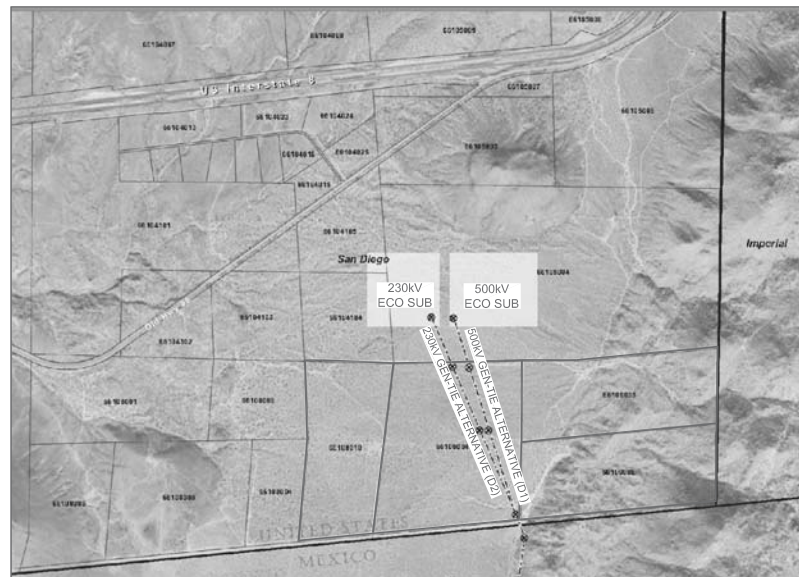
May 2010

52573

### Preliminary Plot Plans

#### DRAWING LIST

DWG. NO.	REVISION	TITLE
P11	-	COVER-INDEX
P12	-	OVERALL LAYOUT SHEET
P13	-	230KV STEEL LATTICE TOWER PLAN & PROFILE
P14	-	230KV STEEL MONOPOLE PLAN & PROFILE
P15	-	230KV ALTERNATIVE (D2) PRELIMINARY PLOT PLAN SHEET 1 OF 2
P16	-	230KV ALTERNATIVE (D2) PRELIMINARY PLOT PLAN SHEET 2 OF 2
P17	-	500KV STEEL LATTICE TOWER PLAN & PROFILE
P18	-	500KV STEEL MONOPOLE PLAN & PROFILE
P19	-	500KV ALTERNATIVE (D1) PRELIMINARY PLOT PLAN SHEET 1 OF 2
P20	-	500KV ALTERNATIVE (D1) PRELIMINARY PLOT PLAN SHEET 2 OF 2



PROJECT PARCEL #'s:  
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APN 661-090-05  
APN 661-090-06

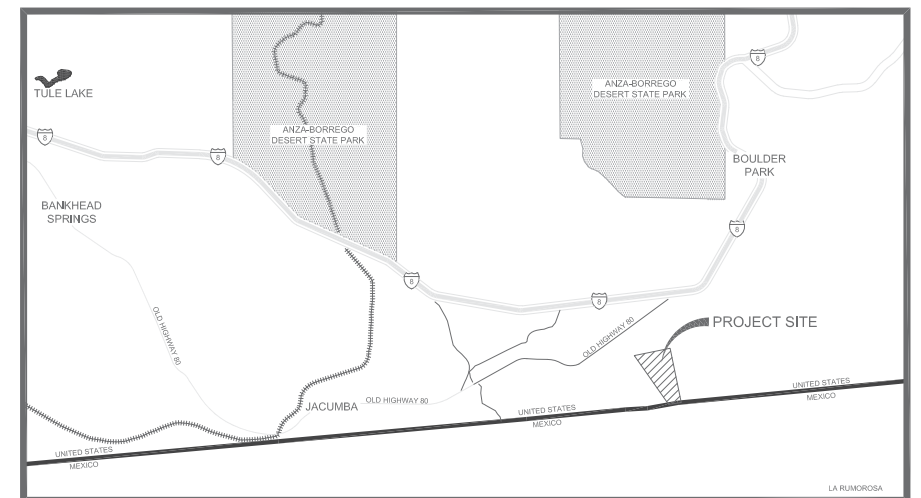
ECO SUBSTATION PARCEL #'s:  
APN 661-050-04  
APN 661-041-04  
APN 661-041-05

ACCESS PARCEL #'s:  
APN 661-041-03  
APN 661-041-02  
APN 661-080-08  
APN 661-080-10

ACCEPTABLE CONDUCTOR CONFIGURATIONS  
230 kV ALTERNATIVE  
2 CONDUCTOR 2156 kcmil BLUEBIRD  
2 CONDUCTOR 1113 kcmil FINCH/ACSS  
500 kV ALTERNATIVE  
2-CONDUCTOR 2156 kcmil BLUEBIRD  
3-CONDUCTOR 795 kcmil DRAKE

OWNER: ENERGIA SIERRA JUAREZ U.S. TRANSMISSION LLC. (ESJ U.S.)  
101 ASH STREET  
HQ #14  
SAN DIEGO, CA 92101  
(619) 696-2121

ENGINEER: BURNS & MCDONNELL  
9400 WARD PARKWAY  
KANSAS CITY, MO 64114  
(816) 333-9400



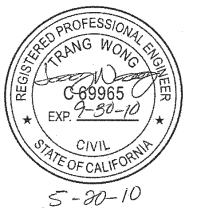
VICINITY MAP  
N.T.S.



**PRELIMINARY - NOT  
FOR CONSTRUCTION**

NOTE:  
DEPICTION OF SDG&E'S ECO SUBSTATION IS  
APPROXIMATE AND SUBJECT TO FINAL DESIGN BY SDG&E.

NOTE:  
THESE REVISED PLANS ARE BASED ON THE ECO  
SUBSTATION ALTERNATIVE LOCATIONS. THERE  
ARE TWO SEPERATE GEN-TIE ALTERNATIVES  
SHOWN WITHIN THESE PLANS, A 230KV  
ALTERNATIVE AND A 500KV ALTERNATIVE. ONLY  
ONE OF THE TWO OPTIONS IS TO BE  
CONSTRUCTED UNDER THIS APPLICATION, BUT  
THE FINAL ALTERNATIVE IS YET TO BE  
DETERMINED. FUTURE PLANS WILL BE REVISED  
TO ONLY INCLUDE THE ALTERNATIVE THAT IS TO  
BE CONSTRUCTED.



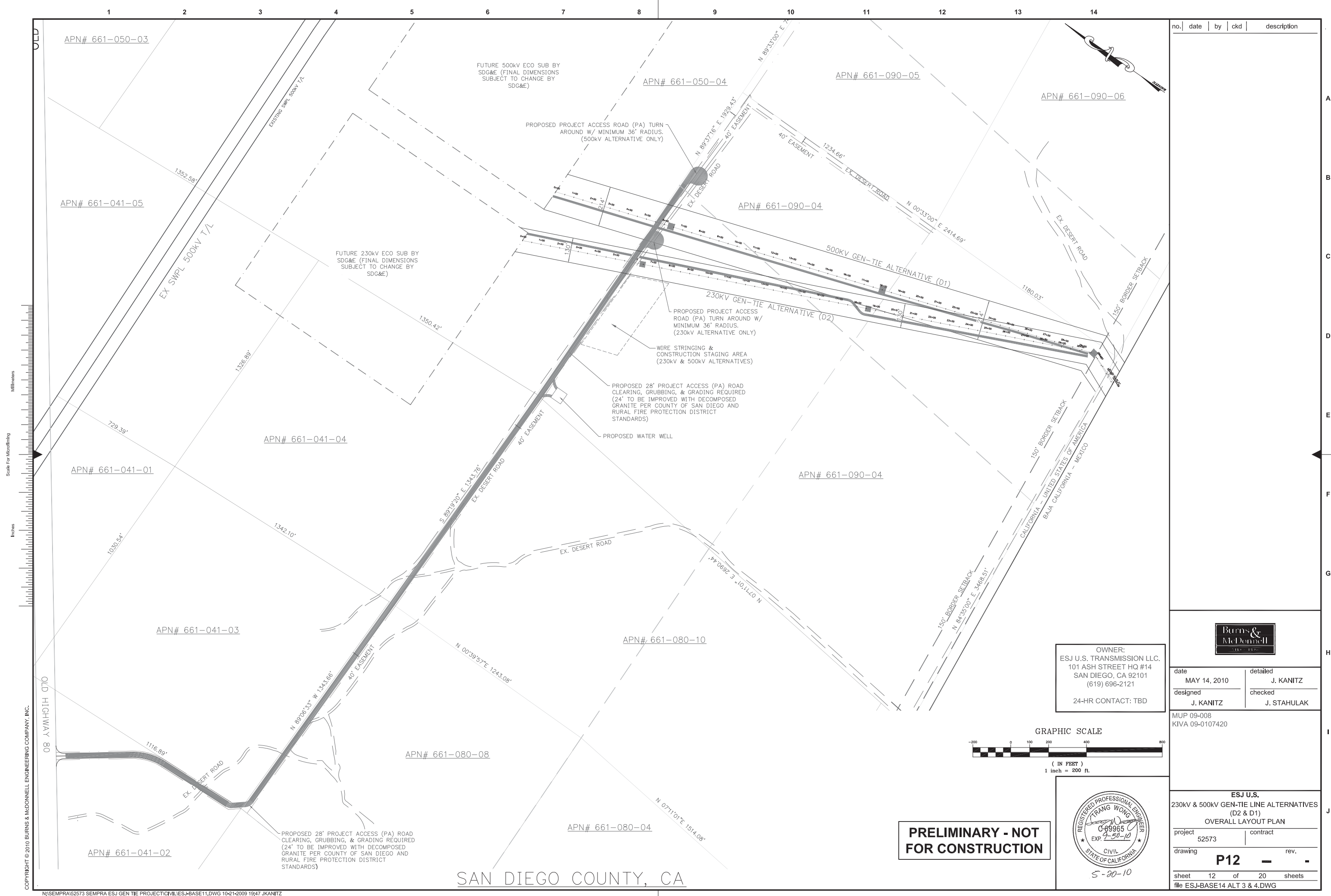
no.	date	by	ckd	description



**ESJ U.S. Gen-Tie Line Alternative Project**  
**MUP 09-008**  
**KIVA 09-0107420**

**P11**























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Scale For Microlining

Inches

Millimeters

### LEGEND

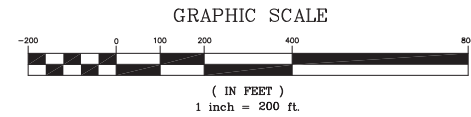
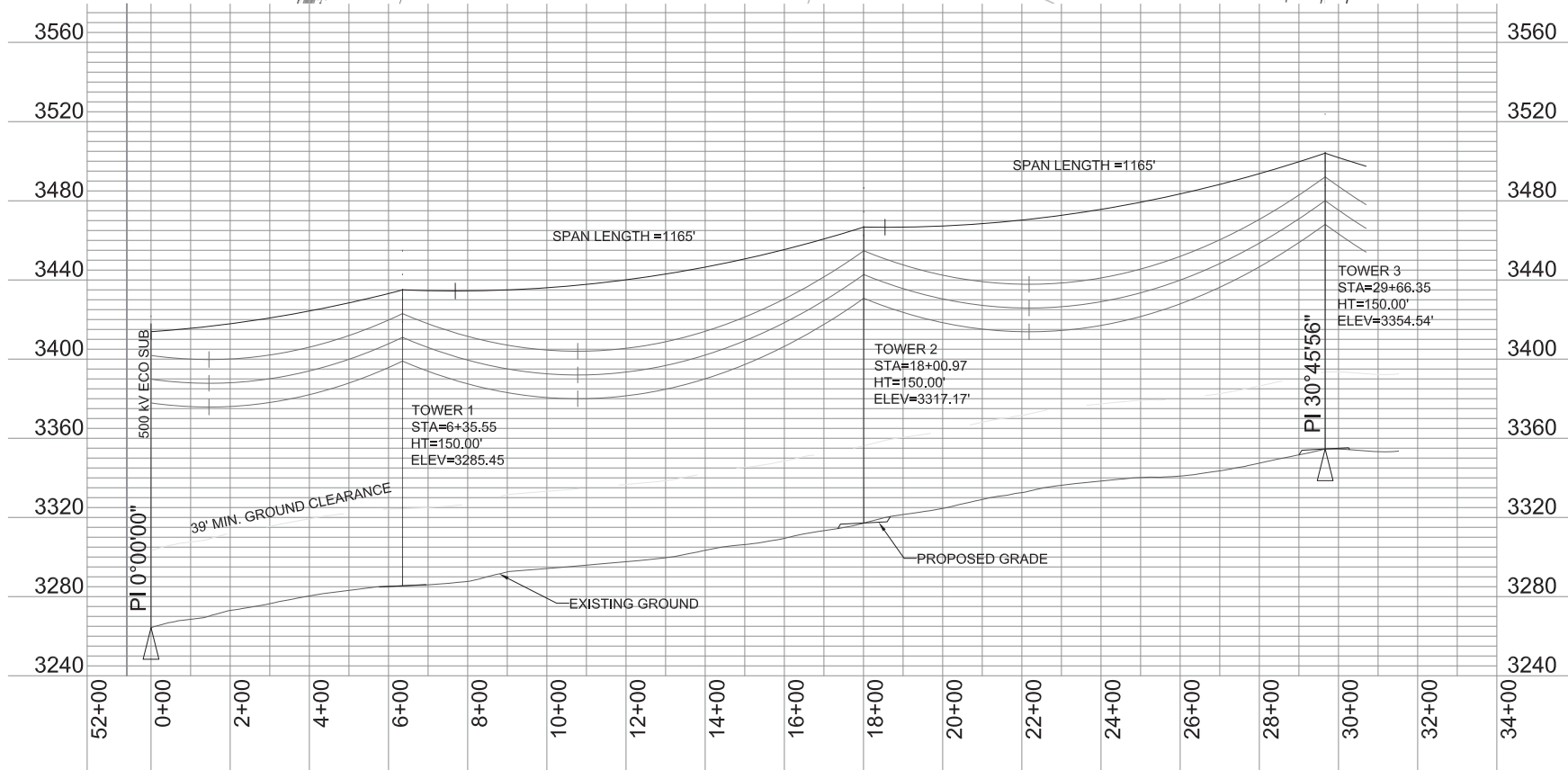
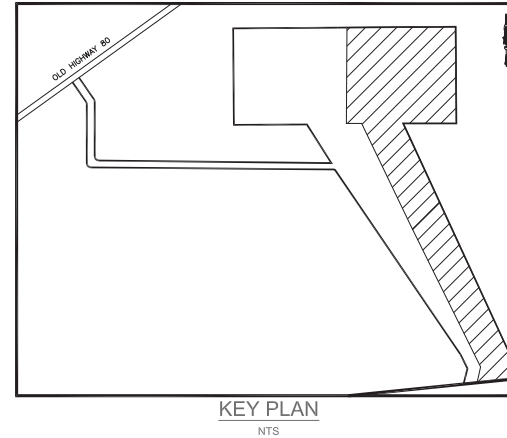
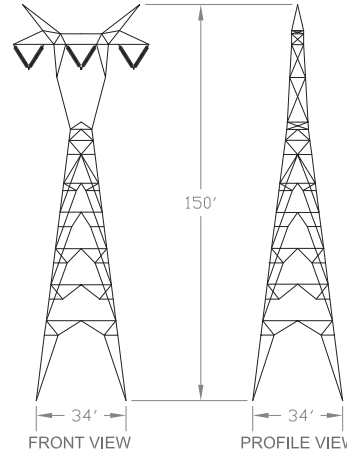
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	FUTURE SUBSTATION BOUNDARY
	EXISTING DESERT ROAD
	28' PROJECT ACCESS (PA) ROAD
	12' PROPOSED GEN-TIE ROAD
	PROPOSED 500kV STEEL LATTICE TOWER

**PRELIMINARY - NOT  
FOR CONSTRUCTION**

## 500 kV LATTICE TOWER PROFILE

SCALE: 1"=200' HORIZONTAL  
1"=40' VERTICAL

TYPICAL 500kV STEEL LATTICE TOWER



GRAPHIC SCALE

( IN FEET )  
1 inch = 200 ft.



date MAY 14, 2010	detailed J. KANITZ
designed J. KANITZ	checked J. STAHULAK

MUP 09-008  
KIVA 09-0107420

OWNER:  
ESJ U.S. TRANSMISSION LLC.  
101 ASH STREET HQ #14  
SAN DIEGO, CA 92101  
(619) 696-2121  
24-HR CONTACT: TBD



**ESJ U.S.**  
500 kV GEN-TIE LINE ALTERNATIVE (D1)  
LATTICE TOWER PLAN/PROFILE

project 52573	contract
drawing <b>P17</b>	rev. -
sheet 17	of 20
file ESJ-BASE14 ALT 3 & 4.DWG	sheets



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Scale For Microlining  
Inches  
Millimeters

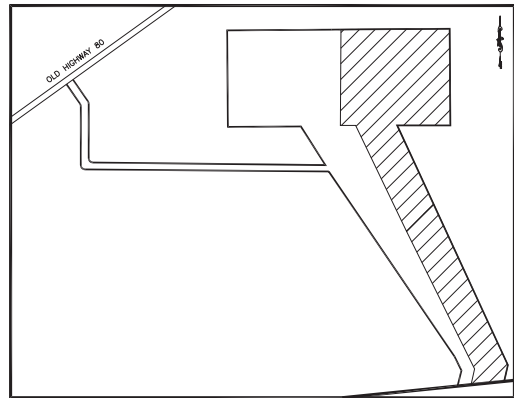
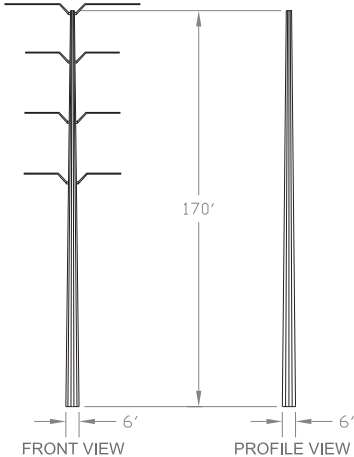
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- PROPERTY BOUNDARY LINE
- EASEMENT LINE
- FUTURE SUBSTATION BOUNDARY
- EXISTING DESERT ROAD
- 28' PROJECT ACCESS (PA) ROAD
- 12' PROPOSED GEN-TIE ROAD
- PROPOSED 500kV STEEL MONOPOLE

500 kV MONOPOLE PROFILE

SCALE: 1"=200' HORIZONTAL  
1"=40' VERTICAL

TYPICAL 500kV STEEL MONOPOLE



KEY PLAN  
NTS

PRELIMINARY - NOT  
FOR CONSTRUCTION

OWNER:  
ESJ U.S. TRANSMISSION LLC.  
101 ASH STREET HQ #14  
SAN DIEGO, CA 92101  
(619) 696-2121  
24-HR CONTACT: TBD

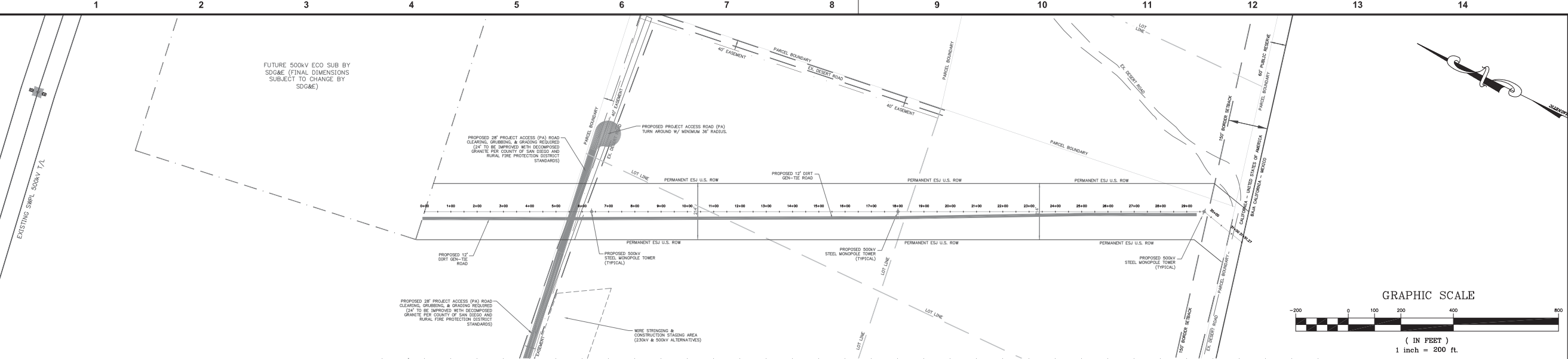


date MAY 14, 2010  
designed J. KANITZ  
detailed J. KANITZ  
checked J. STAHULAK

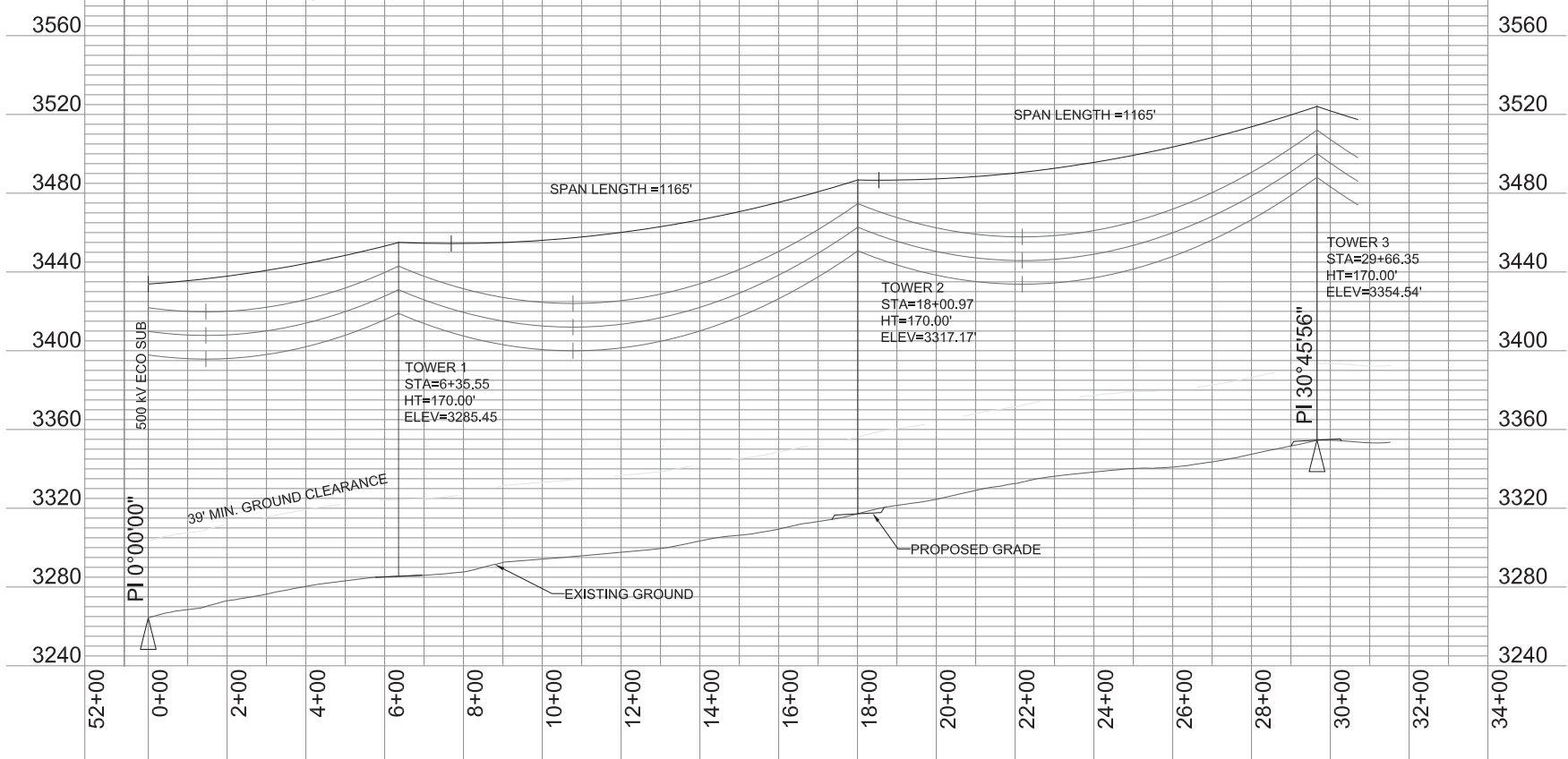
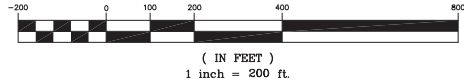
MUP 09-008  
KIVA 09-0107420

ESJ U.S.  
500 kV GEN-TIE LINE ALTERNATIVE (D1)  
MONOPOLE TOWER PLAN/PROFILE

project 52573  
drawing P18  
sheet 18 of 20 sheets  
contract  
rev.  
file ESJ-BASE14 ALT 3 & 4.DWG



GRAPHIC SCALE





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Scale For Microlining

Inches

Millimeters

LEGEND

- |  |                                    |
|--|------------------------------------|
|  | PROPERTY BOUNDARY LINE             |
|  | EASEMENT LINE                      |
|  | FUTURE SUBSTATION BOUNDARY         |
|  | EXISTING DESERT ROAD               |
|  | PROJECT ACCESS (PA) ROAD           |
|  | PROPOSED GEN-TIE ROAD              |
|  | PROPOSED 500kV STEEL LATTICE TOWER |
|  | PROPOSED 500kV STEEL MONO-POLE     |

SAN DIEGO COUNTY, CA

FUTURE 500kV ECO SUB BY  
SDG&E (FINAL DIMENSIONS  
SUBJECT TO CHANGE BY  
SDG&E)

APN# 661-050-04

APN# 661-041-05

APN# 661-090-04

APN# 661-090-04

PROPOSED 28' PROJECT ACCESS (PA) ROAD  
CLEARING, GRUBBING, & GRADING REQUIRED  
(24' TO BE IMPROVED WITH DECOMPOSED  
GRANITE PER COUNTY OF SAN DIEGO AND  
RURAL FIRE PROTECTION DISTRICT  
STANDARDS)

PROPOSED 28' PROJECT ACCESS (PA) ROAD  
CLEARING, GRUBBING, & GRADING REQUIRED  
(24' TO BE IMPROVED WITH DECOMPOSED  
GRANITE PER COUNTY OF SAN DIEGO AND  
RURAL FIRE PROTECTION DISTRICT  
STANDARDS)

PROPOSED 12'  
DIRT GEN-TIE  
ROAD

PROPOSED 500kV  
STEEL LATTICE TOWER  
(TYPICAL)

30' FIRE CLEARING  
LIMITS TO BE  
MAINTAINED AT  
ALL TIMES

WIRE STRINGING &  
CONSTRUCTION STAGING AREA  
(230kV & 500kV ALTERNATIVES)

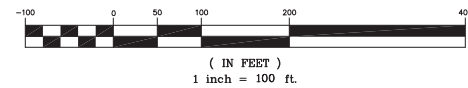
PARKING  
AREA

PROPOSED PROJECT ACCESS ROAD (PA)  
TURN AROUND W/ MINIMUM 36' RADIUS.

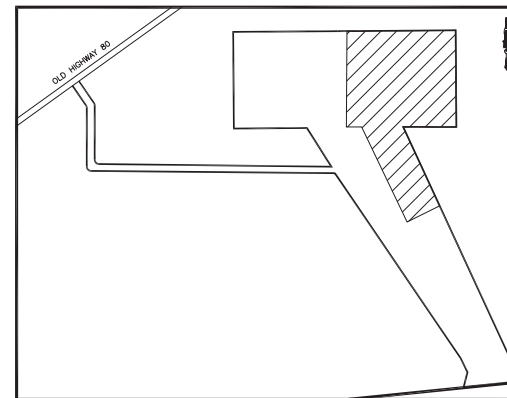
PERMANENT ESJ U.S. ROW

PERMANENT ESJ U.S. ROW

GRAPHIC SCALE



PRELIMINARY - NOT  
FOR CONSTRUCTION



KEY PLAN  
NTS

OWNER:  
ESJ U.S. TRANSMISSION LLC.  
101 ASH STREET HQ #14  
SAN DIEGO, CA 92101  
(619) 696-2121  
  
24-HR CONTACT: TBD



date	MAY 14, 2010	detailed	J. KANITZ
designed	J. KANITZ	checked	J. STAHULAK
MUP 09-008 KIVA 09-0107420			

ESJ U.S. 500 kV GEN-TIE LINE ALTERNATIVE (D1) LAYOUT PLAN			
project	52573	contract	
drawing	P19	rev.	
sheet	19	of	20 sheets
file ESJ-BASE14 ALT 3 & 4.DWG			







Appendix B.4 Alternative 4A and 4B Preliminary Grading Plans – Drawings C09 to C16,  
Revision 1 (June 2010)







ESJ U.S.

Energia Sierra Juárez Gen-Tie Line Alternative Project  
San Diego County, California

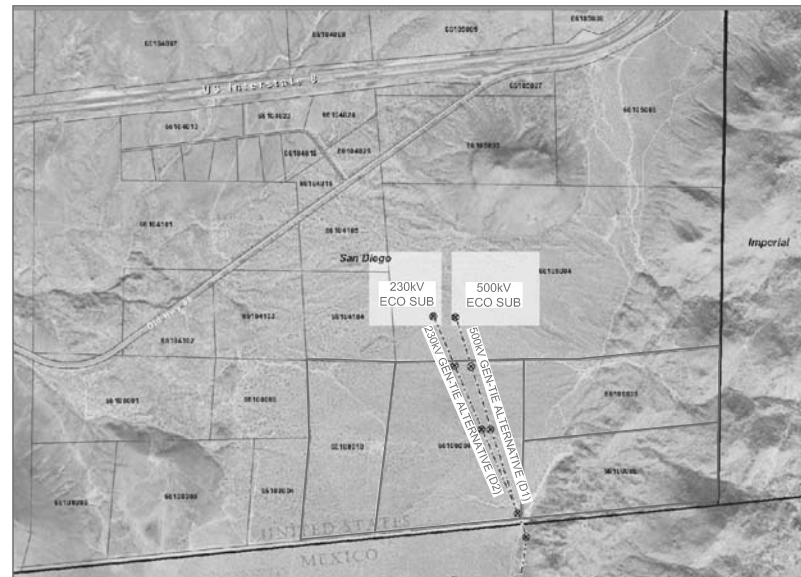
May 2010

52573

Preliminary Grading Plans

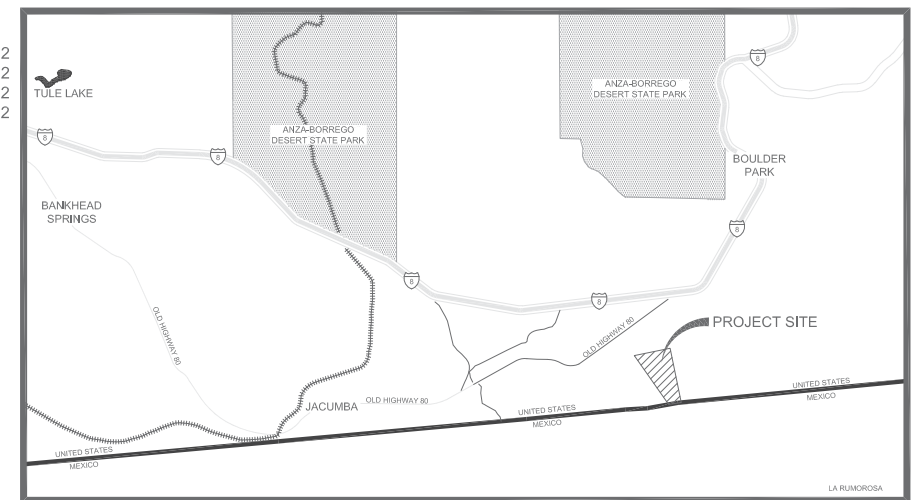
DRAWING LIST

DWG. NO.	REVISION	TITLE
C09	-	COVER-INDEX
C10	-	OVERALL PRELIM. GRADING & EROSION CONTROL PLAN
C11	-	230KV ALTERNATIVE (D2) PRELIM. GRADING & EROSION CONTROL PLAN SHEET 1 OF 2
C12	-	230KV ALTERNATIVE (D2) PRELIM. GRADING & EROSION CONTROL PLAN SHEET 2 OF 2
C13	-	500KV ALTERNATIVE (D1) PRELIM. GRADING & EROSION CONTROL PLAN SHEET 1 OF 2
C14	-	500KV ALTERNATIVE (D1) PRELIM. GRADING & EROSION CONTROL PLAN SHEET 2 OF 2
C15	-	GRADING & EROSION CONTROL DETAILS
C16	-	PROJECT DRAINAGE MAP



OWNER: ENERGIA SIERRA JUAREZ U.S. TRANSMISSION LLC. (ESJ U.S.)  
101 ASH STREET  
HQ #14  
SAN DIEGO, CA 92101  
(619) 696-2121

ENGINEER: BURNS & MCDONNELL  
9400 WARD PARKWAY  
KANSAS CITY, MO 64114  
(816) 333-9400



VICINITY MAP  
N.T.S.



PROJECT PARCEL #'s:  
APN 661-090-04  
APN 661-090-05  
APN 661-090-06

ECO SUBSTATION PARCEL #'s:  
APN 661-050-04  
APN 661-041-04  
APN 661-041-05

ACCESS PARCEL #'s:  
APN 661-041-03  
APN 661-041-02  
APN 661-080-08  
APN 661-080-10

PRELIMINARY - NOT  
FOR CONSTRUCTION

NOTE:  
DEPICTION OF SDG&E'S ECO SUBSTATION IS  
APPROXIMATE AND SUBJECT TO FINAL DESIGN BY SDG&E.

NOTE:  
THESE REVISED PLANS ARE BASED ON THE ECO  
SUBSTATION ALTERNATIVE LOCATIONS. THERE  
ARE TWO SEPERATE GEN-TIE ALTERNATIVES  
SHOWN WITHIN THESE PLANS, A 230KV  
ALTERNATIVE AND A 500KV ALTERNATIVE. ONLY  
ONE OF THE TWO OPTIONS IS TO BE  
CONSTRUCTED UNDER THIS APPLICATION, BUT  
THE FINAL ALTERNATIVE IS YET TO BE  
DETERMINED. FUTURE PLANS WILL BE REVISED  
TO ONLY INCLUDE THE ALTERNATIVE THAT IS TO  
BE CONSTRUCTED.



no.	date	by	ckd	description



ESJ U.S. Gen-Tie Line Alternative Project  
MUP 09-008  
KIVA 09-0107420

C09





sheet 10 of 16 sheets  
file ESJ-BASE14 ALT 3 & 4.DWG





Millimeters  
Inches  
Scale For Microlining

EROSION CONTROL LEGEND

- SC-1 x TEMPORARY SILT FENCE
- WM-3 STOCKPILE MANAGEMENT
- WE-1 WIND EROSION CONTROL
- SC-8 SANDBAG CROSS BARRIER
- TC-1 STABILIZED CONSTRUCTION ENTRANCE/EXIT

\*SEE SHEET C15 FOR GRADING & EROSION CONTROL DETAILS

**NOTE:**  
THIS PLAN IS PROVIDED TO ALLOW FOR FULL AND ADEQUATE DISCRETIONARY REVIEW OF A PROPOSED DEVELOPMENT PROJECT. THE PROPERTY OWNER ACKNOWLEDGES THAT ACCEPTANCE OR APPROVAL OF THIS PLAN DOES NOT CONSTITUTE AN APPROVAL TO PERFORM ANY GRADING SHOWN HEREON, AND AGREES TO OBTAIN VALID GRADING PERMISSIONS BEFORE COMMENCING SUCH ACTIVITY.

EROSION CONTROL NOTES

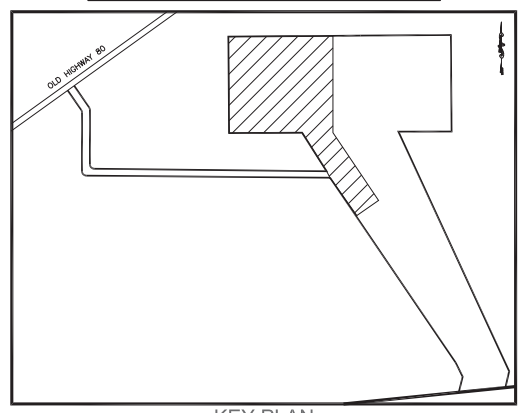
1. SILT FENCE TO BE INSTALLED ON ALL RIGHT-OF-WAY LINES WHERE SILT MAY LEAVE PROJECT AREA. ALL SILT BARRIERS MUST BE PLACED AS ACCESS IS OBTAINED DURING CLEARING. NO GRADING SHALL BE PERFORMED UNTIL SILT BARRIER INSTALLATION IS COMPLETE.
2. CROSS BARRIERS TO BE INSTALLED EVERY 492 ft. (150 m) ALONG EACH REACH OF SILT FENCE.
3. LEAVE SILT FENCE IN PLACE UNTIL FINAL STABILIZATION ON PROJECT HAS OCCURED.
4. ANY DISTURBED AREA LEFT EXPOSED FOR 14 DAYS SHALL BE STABILIZED WITH MULCH OR TEMPORARY SEEDING.
5. EROSION CONTROL MEASURES TO BE MAINTAINED AT ALL TIMES.
6. ALL SLOPES STEEPER THAN 3:1 SHALL BE COVERED WITH EROSION CONTROL BLANKET.
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GRADING NOTES

1. SITE TO BE ACCESSED VIA A 28' WIDE LEGAL PROJECT ACCESS ROAD (PA) (CLEARING, GRUBBING, & GRADING REQUIRED) TO BE INSTALLED AS SHOWN.
2. A 12' WIDE GEN-TIE ROAD SHALL BE INSTALLED WITHIN THE PERMANENT RIGHT OF WAY TO PROVIDE STRUCTURE ACCESS. MAJOR GRADING SHOULD NOT BE NEEDED FOR INSTALLATION OF GEN-TIE ACCESS ROADS.
3. ONLY MINOR GRADING SHOULD BE NECESSARY AT STRUCTURE LOCATIONS. INSTALL SILT BARRIER ON THE DOWNHILL SIDE OF DISTURBED AREAS.
4. SEE EARTHWORK SUMMARY TABLE ON SHEET C10 FOR A SUMMARY OF THE PROJECT EARTHWORK.
5. TOPOGRAPHIC INFORMATION BASED ON U.S.G.S. NATIONAL ELEVATION DATA SET.

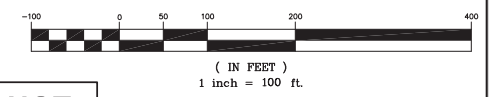
SAN DIEGO COUNTY, CA

**PRELIMINARY - NOT FOR CONSTRUCTION**

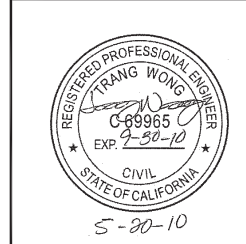


KEY PLAN  
NTS

GRAPHIC SCALE

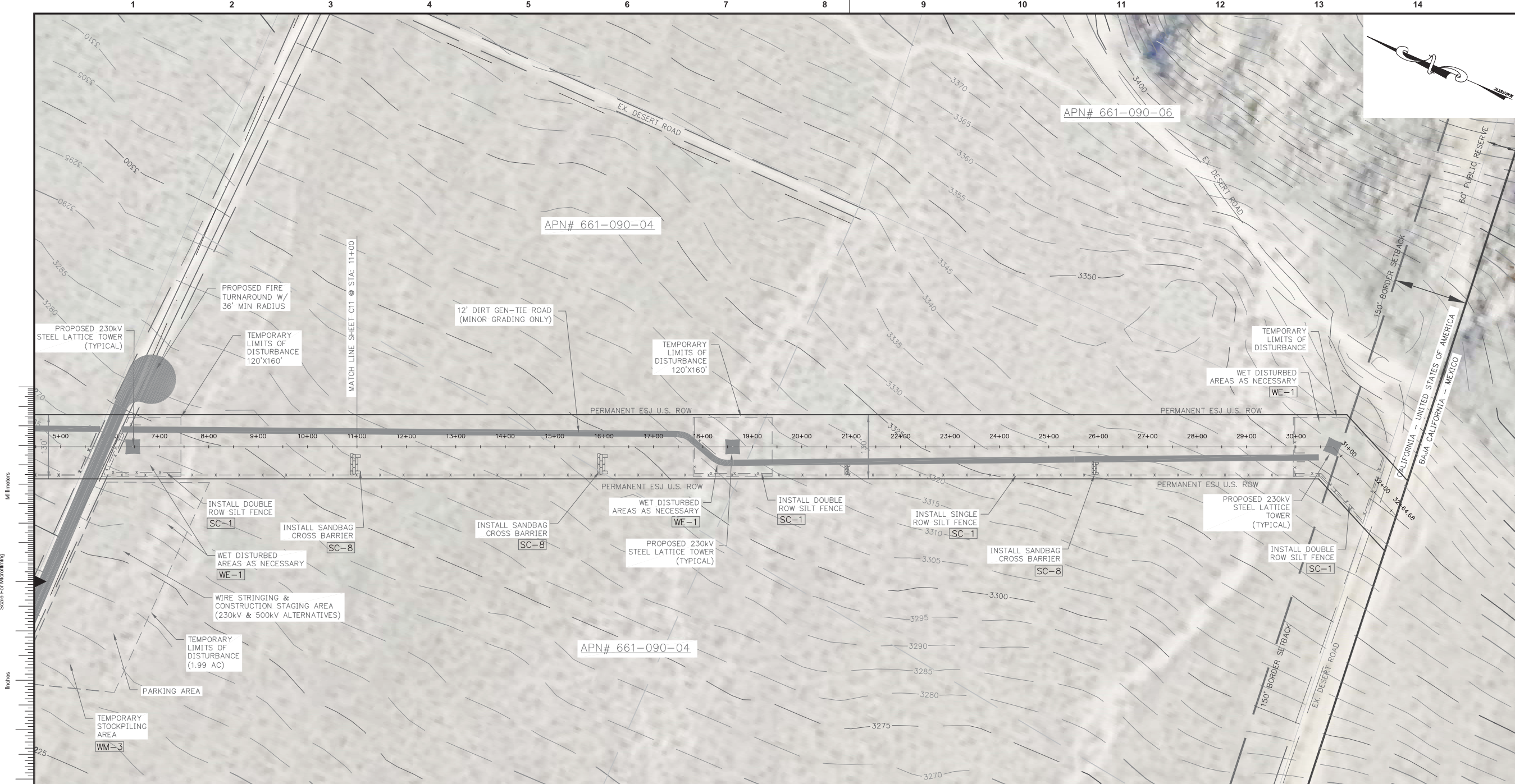


OWNER:  
ESJ U.S. TRANSMISSION LLC.  
101 ASH STREET HQ #14  
SAN DIEGO, CA 92101  
(619) 696-2121  
24-HR CONTACT: TBD



no.		date	by	ckd	description	
MAY 14, 2010		J. KANITZ				
designed		checked				
J. KANITZ		J. STAHULAK				
MUP 09-008						
KIVA 09-0107420						
ESJ U.S.						
230 kV GEN-TIE LINE ALTERNATIVE (D2)						
PRELIMINARY GRADING & EROSION						
CONTROL PLAN						
project		contract				
52573						
drawing		rev.				
C11		—		-		
sheet		11	of	16	sheets	
file ESJ-BASE14 ALT 3 & 4.DWG						





**EROSION CONTROL LEGEND**

SC-1	x	TEMPORARY SILT FENCE
WM-3		STOCKPILE MANAGEMENT
WE-1		WIND EROSION CONTROL
SC-8		SANDBAG CROSS BARRIER
TC-1		STABILIZED CONSTRUCTION ENTRANCE/EXIT

\*SEE SHEET C15 FOR GRADING & EROSION CONTROL DETAILS

**NOTE:**

THIS PLAN IS PROVIDED TO ALLOW FOR FULL AND ADEQUATE DISCRETIONARY REVIEW OF A PROPOSED DEVELOPMENT PROJECT. THE PROPERTY OWNER ACKNOWLEDGES THAT ACCEPTANCE OR APPROVAL OF THIS PLAN DOES NOT CONSTITUTE AN APPROVAL TO PERFORM ANY GRADING SHOWN HEREON, AND AGREES TO OBTAIN VALID GRADING PERMISSIONS BEFORE COMMENCING SUCH ACTIVITY.

**EROSION CONTROL NOTES**

- SILT FENCE TO BE INSTALLED ON ALL RIGHT-OF-WAY LINES WHERE SILT MAY LEAVE PROJECT AREA. ALL SILT BARRIERS MUST BE PLACED AS ACCESS IS OBTAINED DURING CLEARING. NO GRADING SHALL BE PERFORMED UNTIL SILT BARRIER INSTALLATION IS COMPLETE.
- CROSS BARRIERS TO BE INSTALLED EVERY 492 ft. (150 m) ALONG EACH REACH OF SILT FENCE.
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- TOPOGRAPHIC INFORMATION BASED ON U.S.G.S. NATIONAL ELEVATION DATA SET.

**PRELIMINARY - NOT FOR CONSTRUCTION**

**KEY PLAN**

NTS

**GRAPHIC SCALE**

( IN FEET )

1 inch = 100 ft.

**OWNER:**

ESJ U.S. TRANSMISSION LLC.  
101 ASH STREET HQ #14  
SAN DIEGO, CA 92101  
(619) 696-2121

24-HR CONTACT: TBD

**REGISTERED PROFESSIONAL ENGINEER**

FRANG WONG

C-69965

EXP. 2-28-10

CIVIL

STATE OF CALIFORNIA

5-20-10

date	MAY 14, 2010	detailed	J. KANITZ
designed	J. KANITZ	checked	J. STAHULAK
MUP 09-008 KIVA 09-0107420			

**ESJ U.S.**

230 kV GEN-TIE LINE ALTERNATIVE (D2)  
PRELIMINARY GRADING & EROSION CONTROL PLAN

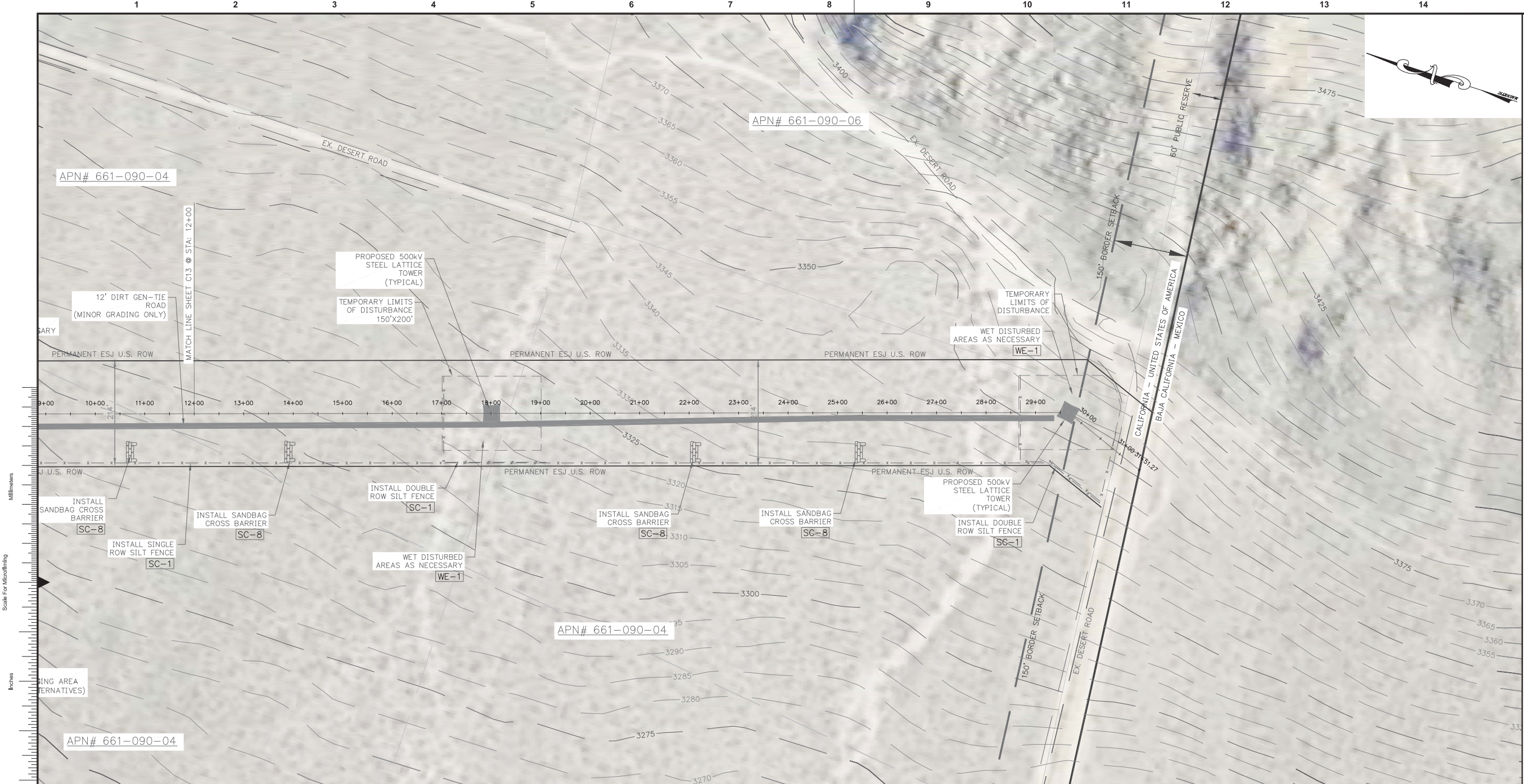
project	52573	contract	
drawing	<b>C12</b>	rev.	
sheet	12	of	16
file ESJ-BASE14 ALT 3 & 4.DWG			

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Millimeters  
Scale For Microlining  
Inches

EROSION CONTROL LEGEND

- SC-1 x TEMPORARY SILT FENCE
- WM-3 STOCKPILE MANAGEMENT
- WE-1 WIND EROSION CONTROL
- SC-8 SANDBAG CROSS BARRIER
- TC-1 STABILIZED CONSTRUCTION ENTRANCE/EXIT

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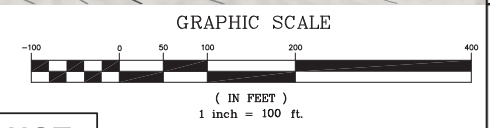
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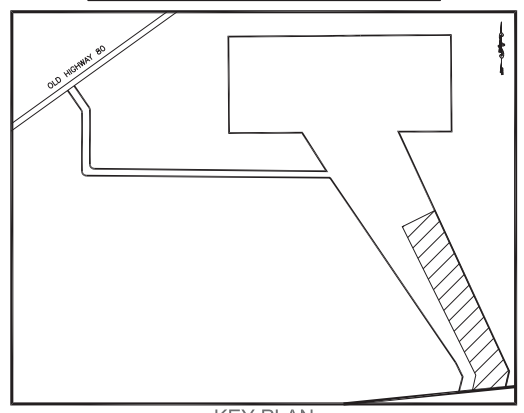
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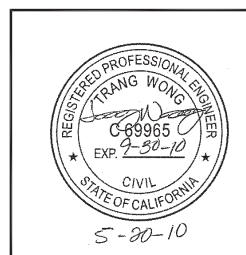
SAN DIEGO COUNTY, CA



PRELIMINARY - NOT FOR CONSTRUCTION

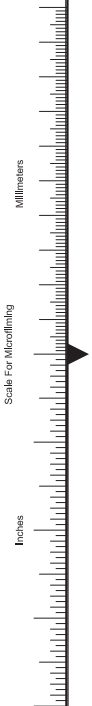


OWNER:  
ESJ U.S. TRANSMISSION LLC.  
101 ASH STREET HQ #14  
SAN DIEGO, CA 92101  
(619) 696-2121  
24-HR CONTACT: TBD



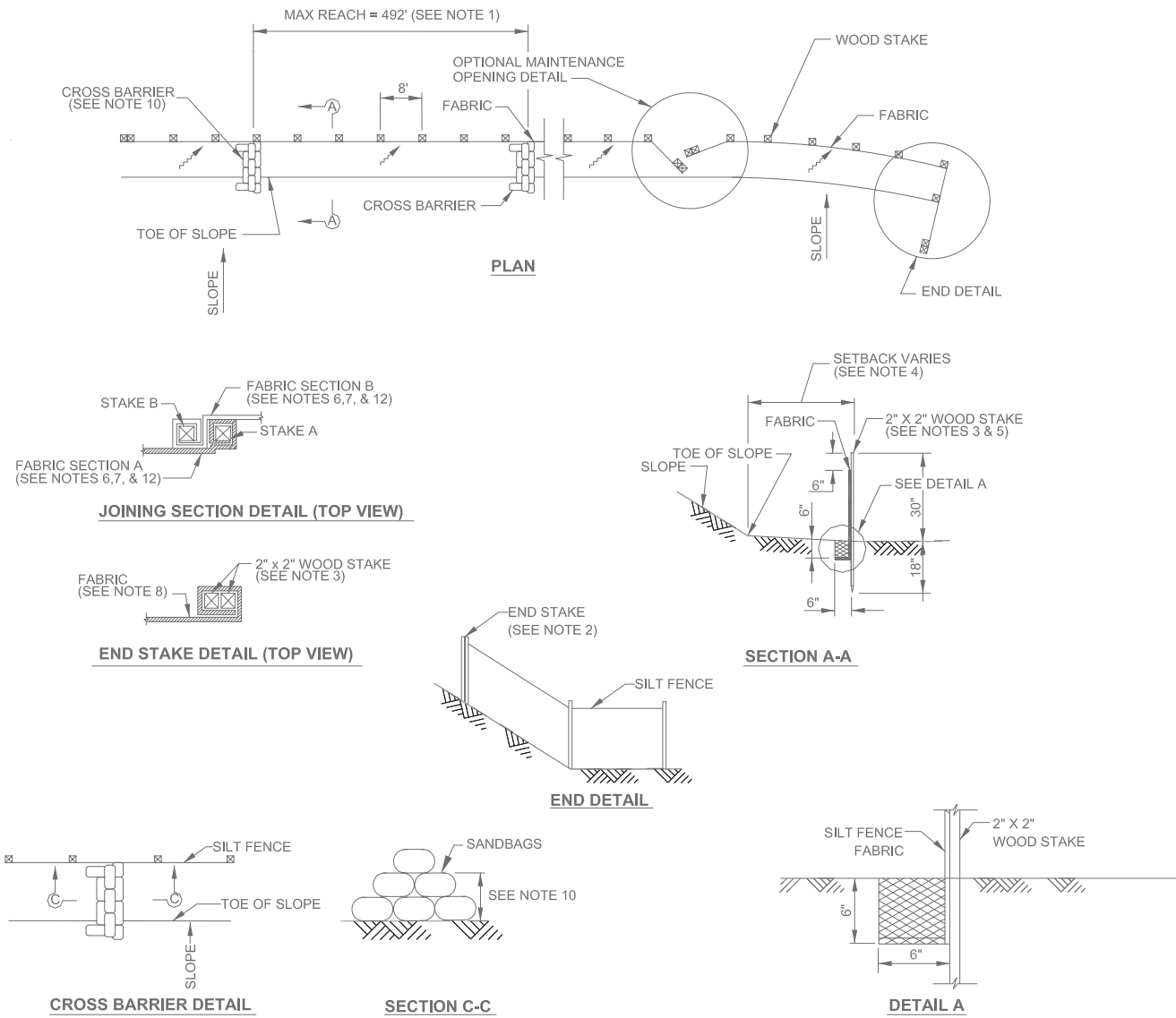
no.		date	by	ckd	description	





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C:\DOCUMENTS AND SETTINGS\UKANITZ\DESKTOP\SEMPRA\ESJ-BASE7.DWG 06-05-2009 17:32 JKANITZ



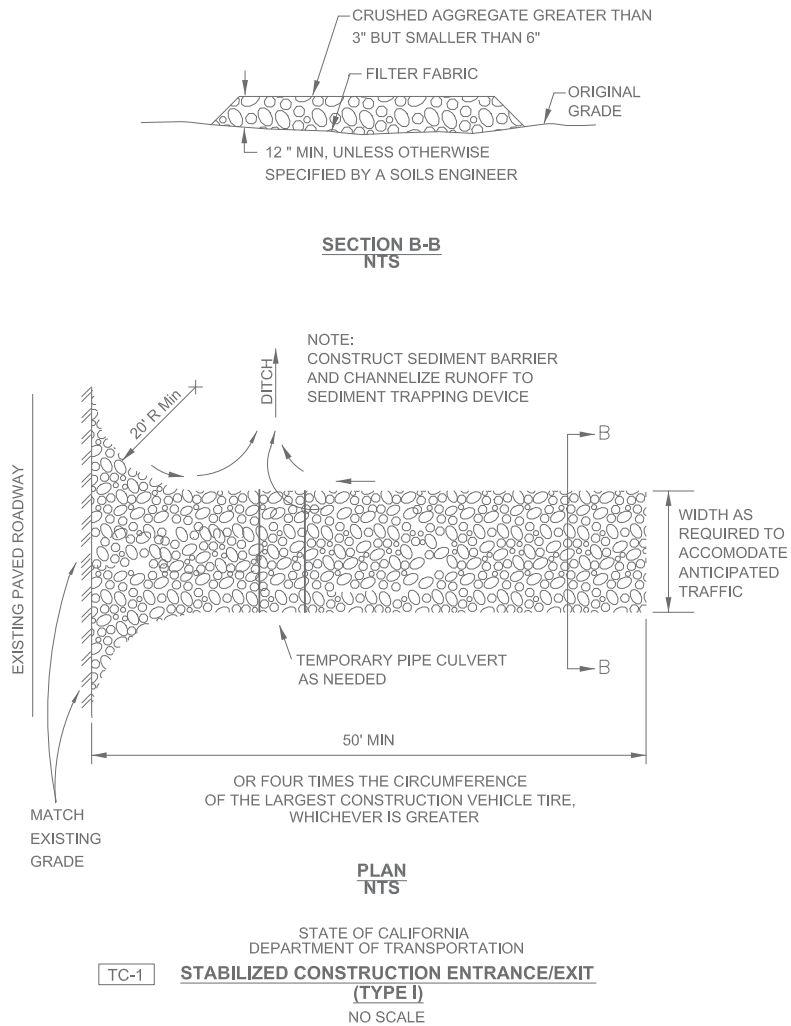
STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION

SC-1 **TEMPORARY LINEAR SEDIMENT BARRIER (TYPE SILT FENCE)**

NO SCALE

**NOTES**

- CONSTRUCT THE LENGTH OF EACH REACH SO THAT THE CHANGE IN BASE ELEVATION ALONG THE REACH DOES NOT EXCEED  $\frac{1}{3}$  THE HEIGHT OF THE LINEAR BARRIER, IN NO CASE SHALL THE REACH LENGTH EXCEED 492'.
- THE LAST 8' OF FENCE SHALL BE TURNED UP SLOPE.
- STAKE DIMENSIONS ARE NOMINAL.
- DIMENSIONS MAY VARY TO FIT FIELD CONDITION.
- STAKES SHALL BE SPACED AT 8' MAXIMUM AND SHALL BE POSITIONED ON DOWNSTREAM SIDE OF FENCE.
- STAKES TO OVERLAP AND FENCE FABRIC TO FOLD AROUND EACH STAKE ONE FULL TURN. SECURE FABRIC TO STAKE WITH 4 STAPLES.
- STAKES SHALL BE DRIVEN TIGHTLY TOGETHER TO PREVENT POTENTIAL FLOW-THROUGH OF SEDIMENT AT JOINT. THE TOPS OF THE STAKES SHALL BE SECURED WITH WIRE.
- FOR END STAKE, FENCE FABRIC SHALL BE FOLDED AROUND TWO STAKES ONE FULL TURN AND SECURED WITH 4 STAPLES.
- MINIMUM 4 STAPLES PER STAKE. DIMENSIONS SHOWN ARE TYPICAL..
- CROSS BARRIERS SHALL BE A MINIMUM OF  $\frac{1}{3}$  AND A MAXIMUM OF  $\frac{1}{2}$  THE HEIGHT OF THE LINEAR BARRIER.
- MAINTENANCE OPENINGS SHALL BE CONSTRUCTED IN A MANNER TO ENSURE SEDIMENT REMAINS BEHIND SILT FENCE.
- JOINING SECTIONS SHALL NOT BE PLACED AT SUMP LOCATIONS.
- SANDBAG ROWS AND LAYERS SHALL BE OFFSET TO ELIMINATE GAPS.



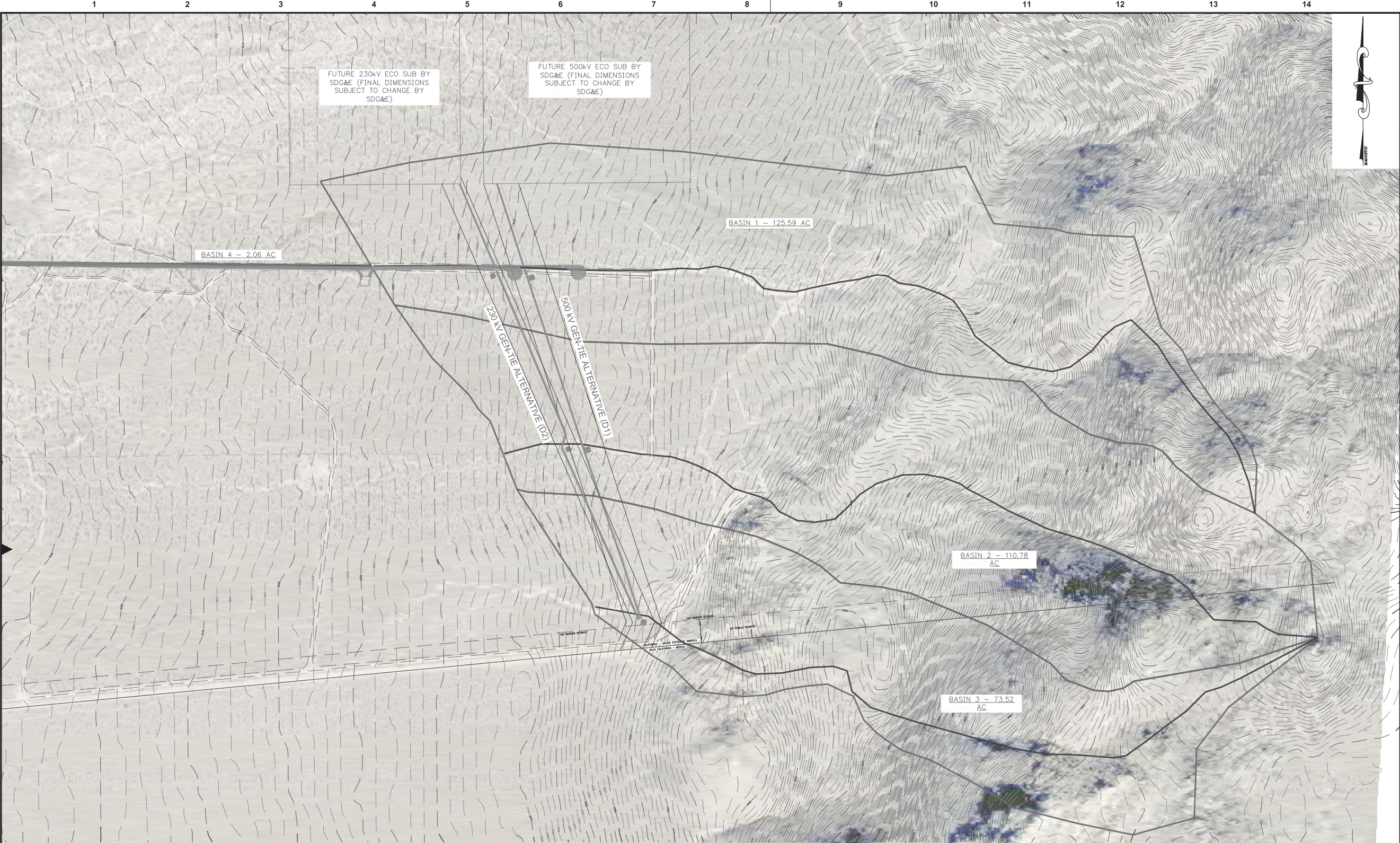
date	MAY 14, 2010	detailed	J. KANITZ
designed	J. KANITZ	checked	J. STAHULAK

MUP 09-008  
KIVA 09-0107420

**ESJ U.S.**  
GEN-TIE LINE ALTERNATIVE  
GRADING & EROSION CONTROL DETAILS

project	52573	contract	
drawing	<b>C15</b>	rev.	-
sheet	15	of	16 sheets
file	ESJ-BASE14 ALT 3 & 4.DWG		

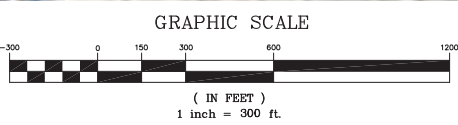




BASIN ANALYSIS				
BASIN #	AREA(Ac)	Post Dev CN	10 YR PRE-DEVELOPED Q (c.f.s)	10 YR POST-DEVELOPED Q (c.f.s)
1.	146.01	64.3	10.04	10.04
2.	159.53	72.5	40.03	40.03
3.	92.27	75.8	34.62	34.62
4.	2.06	67.3	.049	.197

NOTE: THE PROPOSED DEVELOPMENT HAS NO SIGNIFICANT DOWNSTREAM IMPACT. THE SMALL AMOUNT OF IMPERVIOUS SURFACE ADDED IS NOT LARGE ENOUGH TO AFFECT THE POST-DEVELOPED CN, AND THEREFORE DOES NOT INCREASE THE POST-DEVELOPED RUNOFF (Q). FOR FURTHER INFORMATION REFER TO THE FULL HYDROLOGY REPORT.

SAN DIEGO COUNTY, CA



OWNER:  
ESJ U.S. TRANSMISSION LLC.  
101 ASH STREET HQ #14  
SAN DIEGO, CA 92101  
(619) 696-2121  
  
24-HR CONTACT: TBD



no.	date	by	ckd	description

date	MAY 14, 2010	detailed	J. KANITZ
designed	J. KANITZ	checked	J. STAHULAK

MUP 09-008  
KIVA 09-0107420

ESJ U.S.

PROJECT DRAINAGE MAP

project	52573	contract	
drawing	C16	rev.	
sheet	16	of	16 sheets
file	ESJ-BASE14 ALT 3 & 4.DWG		



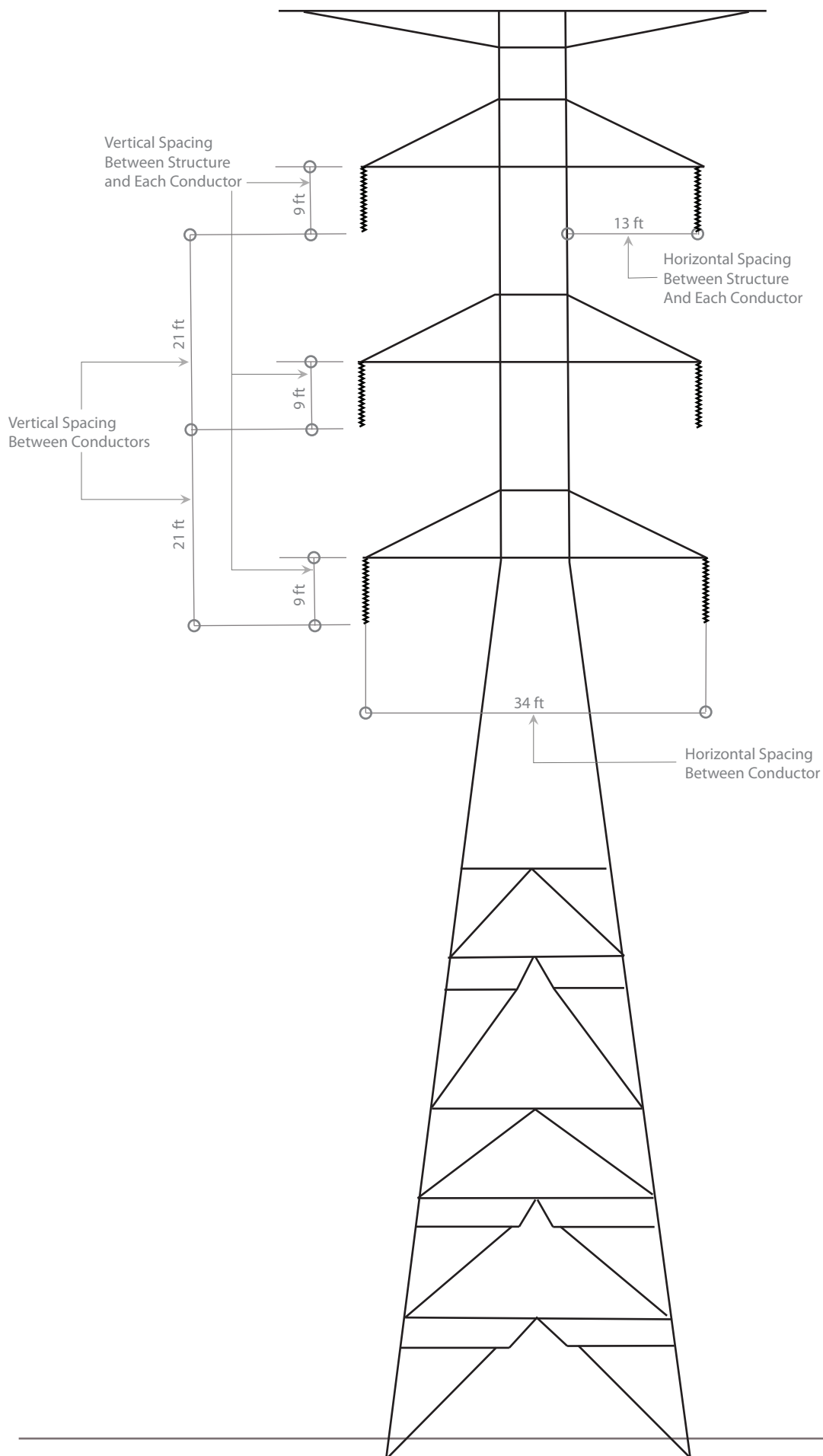
Appendix B.5 Transmission Tower and Monopole Details







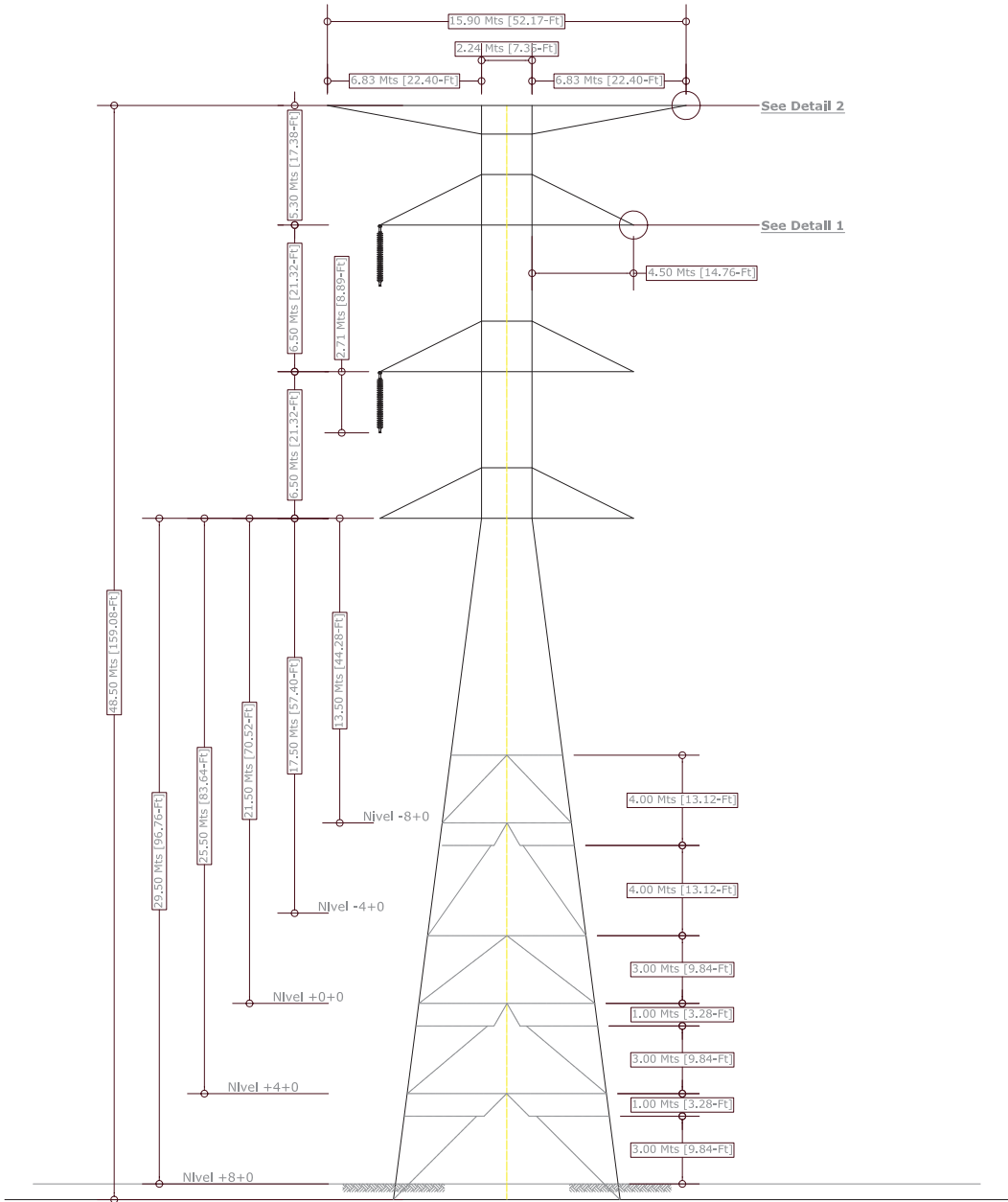




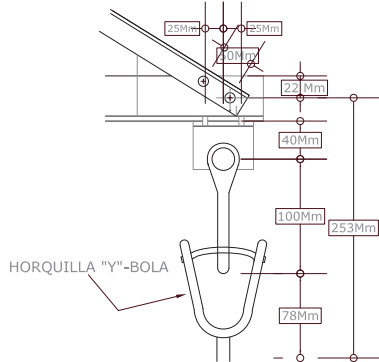




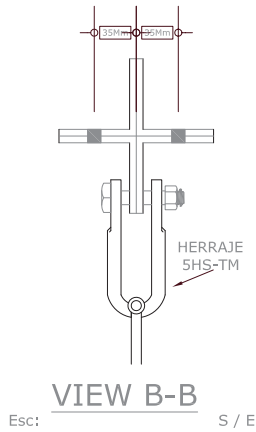




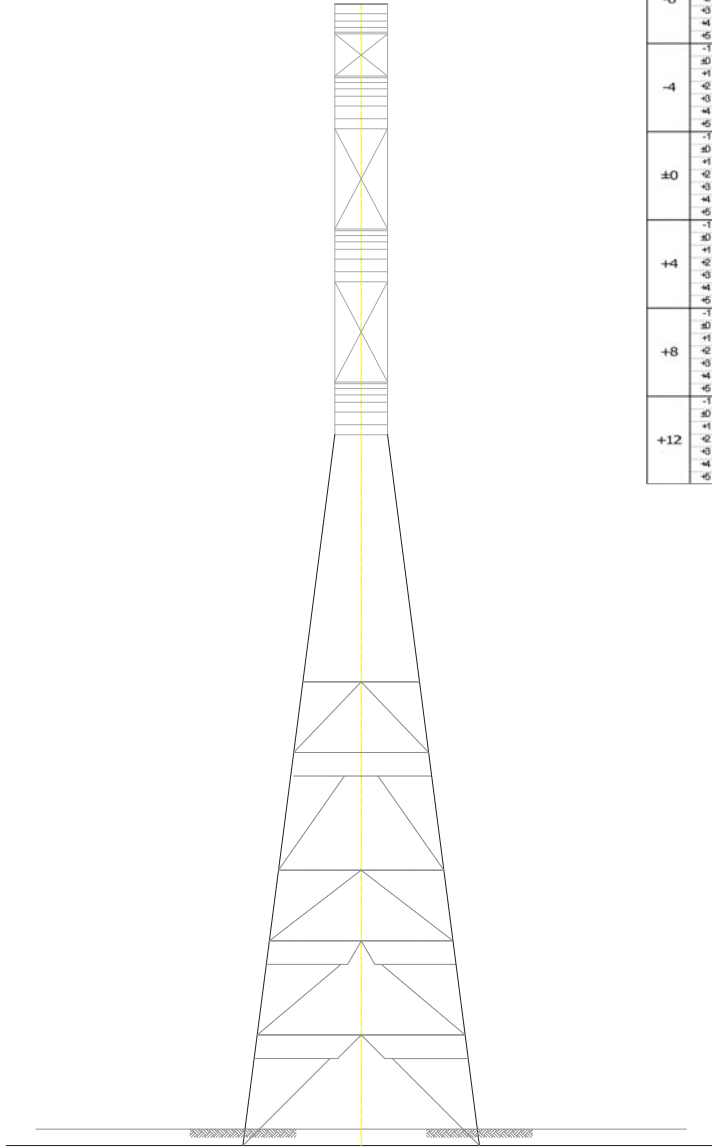
Front View  
LATTICE TOWER TYPE 2R2  
Esc: 1:150



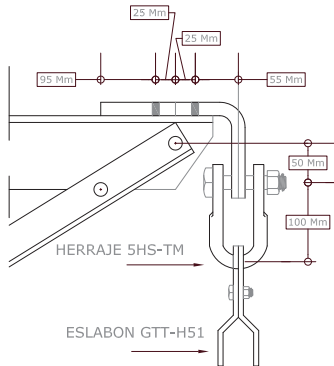
DETAIL 1  
Esc: S / E



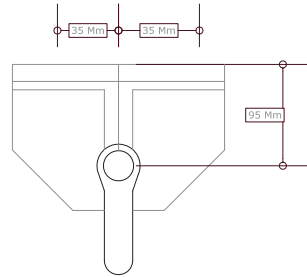
VIEW B-B  
Esc: S / E



Side View  
LATTICE TOWER TYPE 2R2  
Esc: 1:150

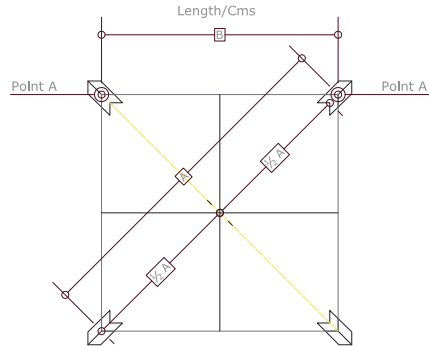


DETAIL 2  
Esc: S / E



VIEW H-H  
Esc: S / E

Torre 2R2		DISTANCIA (Cms)				Peso en Negro (Kg)			
		Entre puntos "A"		Entre Cepes		Galv. Normal x 1.035 Extra Galv. X 1.0525			
		A	1/2 A	B	E	C	D	Cuerpo Sup. Hasta Ceramanto	Cuerpo Sup. Hasta Ceramanto
Nivel	Ext.	A	1/2 A	B	E	C	D	Cuerpo Sup. Hasta Ceramanto	Cuerpo Sup. Hasta Ceramanto
-8	-1	-	-	-	-	-	-	-	-
	-0	830	415	598	-	-	-	1040	430
	-1	865	432	612	-	-	-	1002	-
	-2	-	-	-	-	-	-	-	-
	-3	-	-	-	-	-	-	-	-
-4	-1	971	485	687	-	-	-	1040	430
	-0	1006	503	712	-	-	-	1002	-
	-1	-	-	-	-	-	-	-	-
	-2	-	-	-	-	-	-	-	-
	-3	-	-	-	-	-	-	-	-
+0	-1	1192	596	787	-	-	-	1229	617
	-0	1198	574	812	-	-	-	1225	-
	-1	-	-	-	-	-	-	-	-
	-2	-	-	-	-	-	-	-	-
	-3	-	-	-	-	-	-	-	-
+4	-1	1254	627	887	-	-	-	1229	617
	-0	1280	644	912	-	-	-	1225	-
	-1	-	-	-	-	-	-	-	-
	-2	-	-	-	-	-	-	-	-
	-3	-	-	-	-	-	-	-	-
+8	-1	1305	657	987	-	-	-	1229	617
	-0	1431	715	1112	-	-	-	1225	-
	-1	-	-	-	-	-	-	-	-
	-2	-	-	-	-	-	-	-	-
	-3	-	-	-	-	-	-	-	-
+12	-1	1537	768	1187	-	-	-	1229	617
	-0	1572	786	1192	-	-	-	1225	-
	-1	-	-	-	-	-	-	-	-
	-2	-	-	-	-	-	-	-	-
	-3	-	-	-	-	-	-	-	-



## MACROLOCALIZACION



## LOCATION

## LEGEND

- LATICE TOWER 230 Kv
- STEEL POLE 230 Kv AR92
- TRANSMISSION LINE 230 Kv
- 2R2 DEAD END STRUCTURE
- 2B2 TANGENT STRUCTURE

CLIENT:

SEMPRA ENERGY

DATE:

SCALE:

PROJECT:

FEB 2008

1:200000

230KV TRANSMISSION LINE DOUBLE CIRCUIT

CHK BY:

LOCATION:

Ing. Jerónimo Pineda

JACUME, BC MEX & JACUMA, CA USA

DWG:

DWG:

Arq. Abel Aguilar P.

LATTICE TOWER TYPE 2R2

PROJECT:

Org. No:

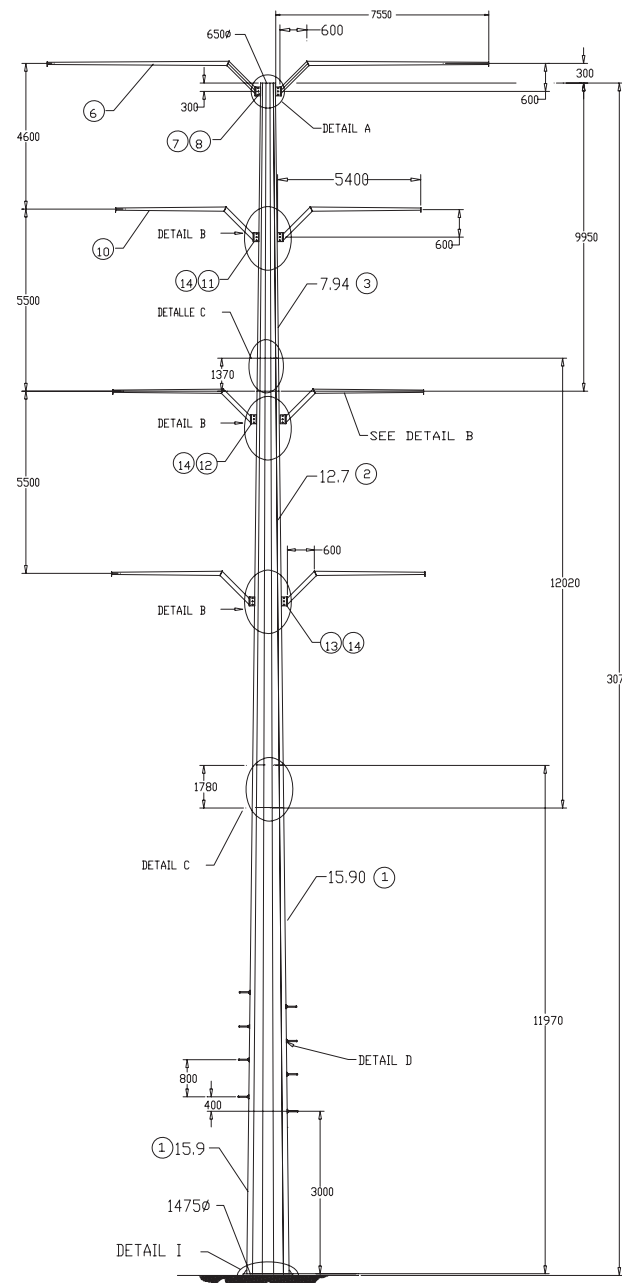
CABLEADOS INDUSTRIALES S.A. DE C.V.  
AVENIDA CANDIDO AGUILAR No. 17120  
OTAY CONSTITUYENTES  
TIJUANA B.C. TEL 623-80-33

LT-03  
(03-10)

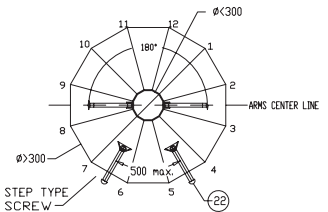




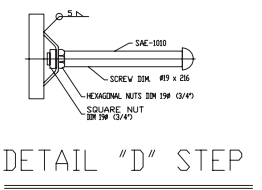




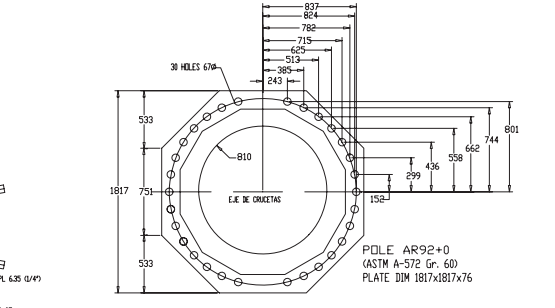
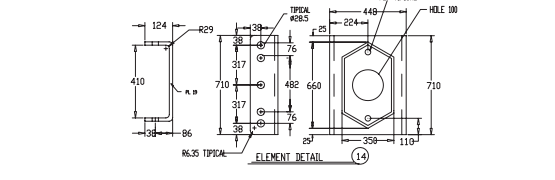
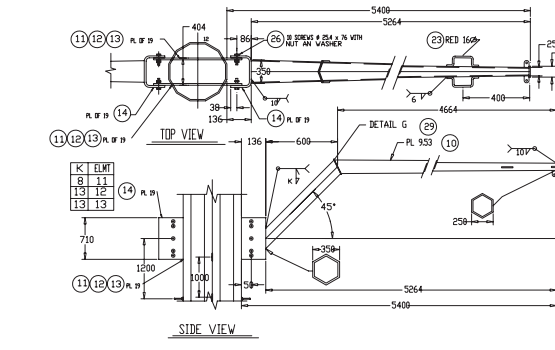
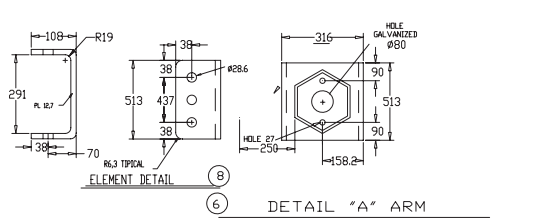
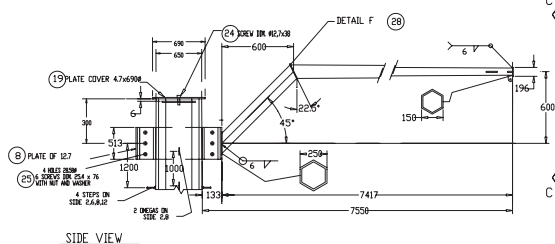
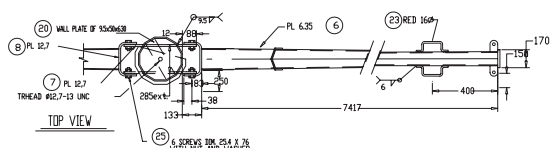
STEEL POLE 230KV SIDE VIEW



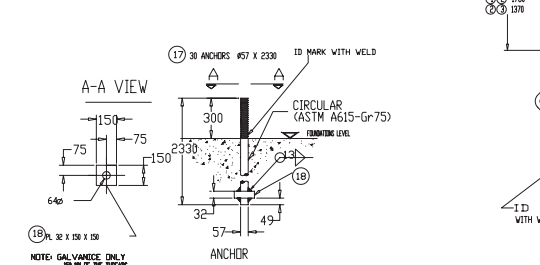
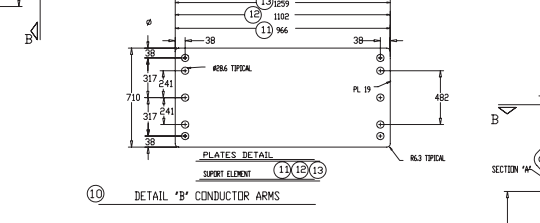
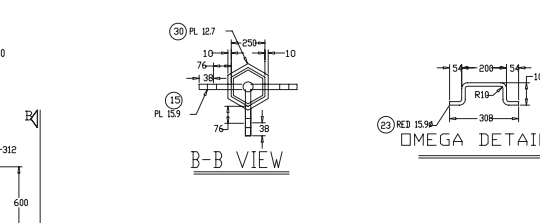
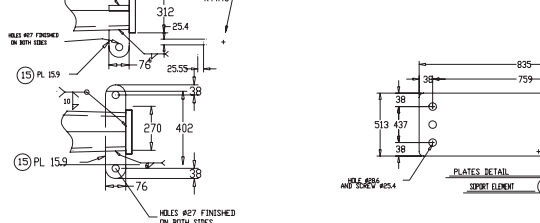
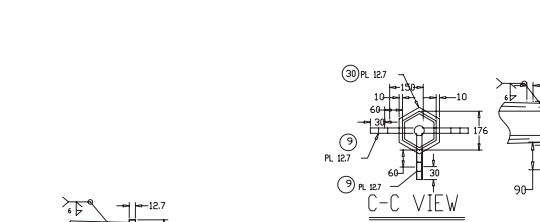
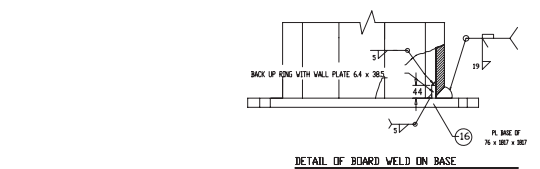
NOTES:  
STEPS MUST BE LOCATED AT 300 DMS FROM THE FOUNDATIONS, AND SPACED 450 DMS ON VERTICAL, SPACING UNTIL 30 DMS DOWN OF THE TOP AND WELL BE LOCATED HORIZONTALLY IN 30 DMS ANGLES. IN 30 DMS DOWN THE HORIZONTAL, A WORKING STEPS AT EACH 90 DEGREES AND 150 DMS DOWN OF THE INTERSECTION F THE ARMS, AT ANY 100 DMS ON THE TOP OF THE STEPS AND AT ANY 100 DEGREES, 2 STEEL WELDS ARE LOCATED.



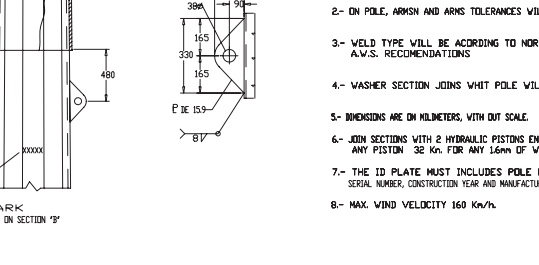
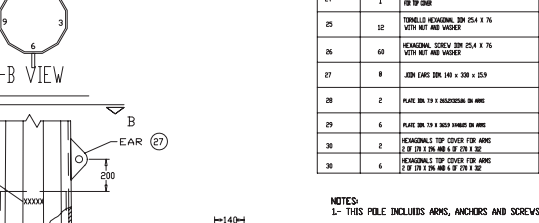
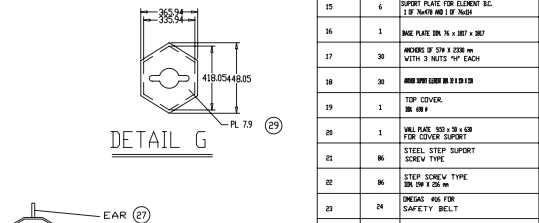
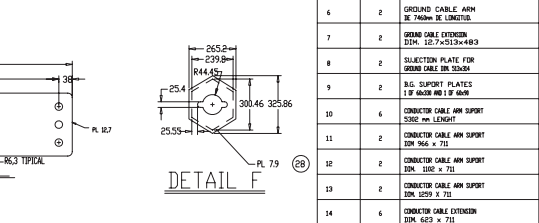
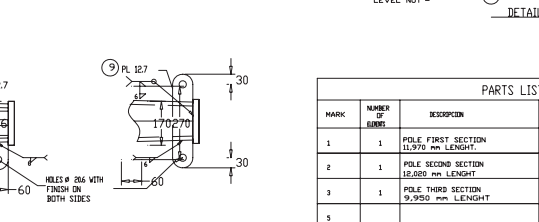
DETAIL "D" STEP



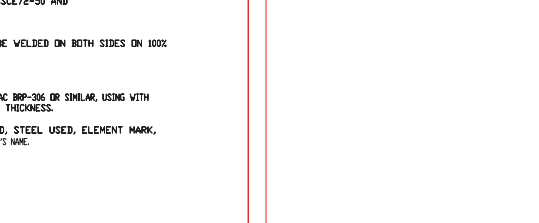
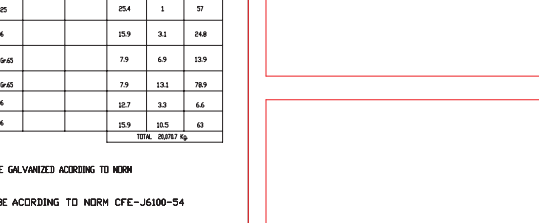
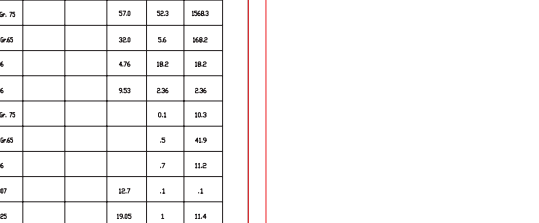
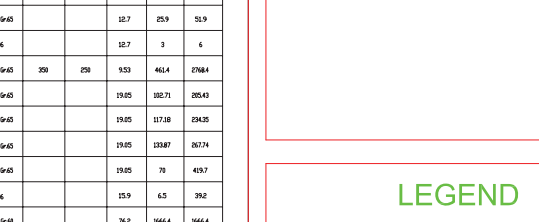
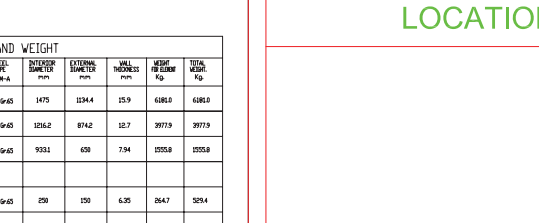
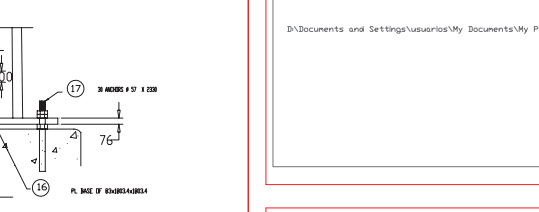
BASE PLATE AND ANCHORS DISTRIBUTION



ANCHOR DETAILS



DETAIL C



DETAIL C

PARTS LIST AND WEIGHT						
MARK	NUMBER OF ELEMENTS	DESCRIPTION	STEEL ASTM-A	INTERIOR FINISH	EXTERNAL FINISH	TOTAL WEIGHT Kg
1	1	POLE FIRST SECTION 12,000 mm LENGTH	S20 Gr45	1475	12044	15.9 6380.0 6380.0
2	1	POLE SECOND SECTION 12,000 mm LENGTH	S20 Gr45	12042	8742	12.7 5977.9 5977.9
3	1	POLE THIRD SECTION 9,000 mm LENGTH	S20 Gr45	9331	659	7.94 1005.8 1005.8
4	2	GROUND CABLE ARM 12,000 mm LENGTH	S20 Gr45	250	150	6.35 264.7 529.4
5	2	GROUND CABLE EXTENSION DIM. 12,000x12,000x400	S20 Gr45	483		12.7 42.76 85.4
6	2	SUPPORT PLATES 1 OF 6000 AND 1 OF 6000	S20 Gr45			12.7 3 6
7	2	CONDUCTOR CABLE ARM SUPPORT 2000x1000x100	S20 Gr45	250	250	5.53 442.4 288.4
8	2	CONDUCTOR CABLE ARM SUPPORT 2000x1000x100	S20 Gr45			19.05 117.08 234.16
9	2	CONDUCTOR CABLE ARM SUPPORT 2000x1000x100	S20 Gr45			19.05 117.08 234.16
10	2	CONDUCTOR CABLE EXTENSION 2000x1000x100	S20 Gr45			19.05 79 419.7
11	2	SUPPORT PLATE FOR ELEMENT 12,000x12,000x400	S20 Gr45			15.9 6.5 32.2
12	1	BASE PLATE 12,000x12,000x400	S20 Gr45			76.2 1666.4 1666.4
13	30	ANCHORS OF 50 X 230 mm WITH 3 HOLES 140 EACH	A572 Gr 50			57.0 52.3 1565.3
14	30	ANCHORS 50 X 230 mm	S20 Gr45			32.0 5.6 168.2
15	1	TOP COVER 12,000x12,000x400	S20 Gr45			4.76 38.2 38.2
16	1	WALL PLATE 12,000x12,000x400	S20 Gr45			5.53 2.36 2.36
17	86	STEEL STEP SUPPORT SCREW TYPE	A572 Gr 50			0.1 10.3
18	86	STEP SCREW TYPE 12,000x12,000x400	S20 Gr45			.5 41.9
19	24	OMEGA 12,000x12,000x400	S20 Gr45			.7 11.2
20	1	HEXAGONAL SCREW 12,000x12,000x400	S20 Gr45			12.7 .1 .1
21	12	TORQUE HEXAGONAL 12,000x12,000x400	S20 Gr45			19.05 1 21.4
22	60	HEXAGONAL SCREW 12,000x12,000x400	S20 Gr45			25.4 1 57
23	8	ARM END 12,000x12,000x400	S20 Gr45			15.9 3.1 24.8
24	2	PLATE 12,000x12,000x400	S20 Gr45			7.9 6.9 13.9
25	5	PLATE 12,000x12,000x400	S20 Gr45			7.9 13.1 26.9
26	2	HEXAGONAL TOP COVER FOR ARMS 12,000x12,000x400	S20 Gr45			12.7 3.3 6.6
27	6	HEXAGONAL TOP COVER FOR ARMS 12,000x12,000x400	S20 Gr45			15.9 10.5 63
TOTAL WEIGHT Kg						

NOTES:  
1- THIS POLE INCLUDES ARMS, ANCHORS AND SCREWS ARE GALVANIZED ACCORDING TO NORM  
2- ON POLE, ARMS AND ARMS TOLERANCES WILL BE ACCORDING TO NORM CFE-J6100-54  
3- WELD TYPE WILL BE ACCORDING TO NORM ASCE72-50 AND A.I.S. RECOMMENDATIONS  
4- WASHER SECTION JOINS WITH POLE WILL BE WELDED ON BOTH SIDES ON 100%  
5- DIMENSIONS ARE IN MILLIMETERS, WITH OUT SCALE  
6- JOIN SECTIONS WITH 2 HYDRAULIC PISTONS ENERPAC BRP-306 OR SIMILAR, USING WITH ANY PISTON 32 KN FOR ANY 16mm OF WALL THICKNESS  
7- THE ID PLATE MUST INCLUDES POLE KIND, STEEL USED, ELEMENT MARK, SERIAL NUMBER, CONSTRUCTION YEAR AND MANUFACTURER'S NAME  
8- MAX. WIND VELOCITY 160 Km/h


## MACROLOCATION

D:\Documents and Settings\vasuarias\My Documents\My Pictures\Mapa Republica Unipolamp

## LOCATION

## LEGEND

CLIENT:



DATE: FEB 2008

SCALE: 1:200000

PROJECT: 230KV TRANSMISSION LINE DOUBLE CIRCUIT

CHARGE BY: Ing. Jeronimo Pineda


LOCATION: JACUMEC, BC MEX & JACUMEC, CA USA

DRAWN: Arq. Abel Aguilar P.

DATE: 2008

PROJECT: STEEL POLE AR92

PROJECT:



CABLEADOS INDUSTRIALES S.A. DE C.V.  
AVENIDA CARLOS AGUILAR No. 17120  
OTAY CONSTITUYENTES  
TIJUANA, B.C. TEL 623-86-33

Des. No:

LT-05  
(05-07)







Appendix B.6 Estimated Equipment and Vehicle Requirements and Utilization Table







<p style="text-align: center;"><b>Appendix B.6</b>  <b>Estimated Equipment and Vehicle Requirements and Utilization</b></p>							
Activity	Equipment and Vehicle				Working Days	Daily Hours	Daily VMT
	Type	Category	BHP	Qty			
Survey Sites	Pickup truck	On-road LD		1	6		50
Worker Commuting	Pickup truck	On-road LD		20	54		1,000
Marshalling Yards	Pickup truck	On-road LD		3	54		150
	Water truck	On-road HHD		1	54		50
	Tractor truck w/trailer	On-road HHD		1	48		50
	Hydraulic crane, 25 ton	Off-road	300	1	36	3.33	
	Loader, model 980	Off-road	300	1	48	3.75	
	Forklift, 5 ton	Off-road	155	1	48	3.75	
	Portable generator	Off-road	5	1	48	3.75	
Grading & Road Work	Pickup truck	On-road LD		2	12		100
	Water truck	On-road HHD		1	12		50
	Bulldozer	Off-road	285	1	12	8	
	Roller	Off-road	80	1	12	8	
Foundations	Pickup truck	On-road LD		2	12		100
	Water truck	On-road HHD		1	12		50
	Concrete truck	On-road HHD		2	12		200
	Drill rig	Off-road	600	1	12	10	
Steel Assembly & Erection	Pickup truck	On-road LD		3	12		150
	Water truck	On-road HHD		1	12		50
	Tractor truck w/trailer	On-road HHD		1	12		50
	Crane, 40 ton	Off-road	350	1	12	10	
	Air compressor	Off-road	75	1	12	10	
	Portable generator	Off-road	5	1	12	10	
Conductor Installation	Pickup truck	On-road LD		2	12		100
	Water truck	On-road HHD		1	12		50
	Flatbed truck w/reels	On-road MD		1	12		50
	Rigging truck	On-road MD		5	12		250
	Dump truck	On-road HHD		1	6		50
	Puller tensioner	Off-road	165	1	12	10	
	Splice rig	Off-road	300	1	6	10	
	Portable generator	Off-road	5	1	12	10	
Cleanup	Pickup truck	On-road LD		2	12		100
<p>Notes:  LD = light duty; MD = medium duty; HHD = heavy heavy duty; BHP = brake horsepower; VMT = vehicle miles traveled  Construction activities occur 6 days per week maximum; daily operating hours and daily VMT are maximum estimates.  Source: Sempra 2009, as cited in EDAW 2009d.</p>							







Appendix B.7 County of San Diego Rural Fire Protection District letter (David Nissen, Division Chief) to County of San Diego Department of Planning and Land Use, indicating acceptance of the Fire Protection Plan (July 15, 2009). The date of the Fire Protection Plan that was reviewed is not indicated.

Appendix B.8 Short Form Fire Protection Plan (Hunt Research Corporation 2009)

Appendix B.9 County of San Diego Fire Authority letter (Paul Dawson, Fire Marshal) to County of San Diego Department of Planning and Land Use, indicating acceptance of the September 10, 2009 Fire Protection Plan (November 25, 2009)

Appendix B.10 County of San Diego Rural Fire Protection District letter (June 17, 2011)







July 15, 2009

County of San Diego  
Department of Planning and Land Use  
5201 Ruffin Road, Suite B  
San Diego, CA 92123-1666

Re: Gen-Tie FPP Approval

Dear Planner,

The San Diego Rural Fire Protection District has reviewed the fire protection plan submitted by the Hunt Research Corporation. The plan meets the objectives of the California Fire Code 2007 edition, as well as the Fire Districts requirements for discretionary projects. Please call me directly with any questions that you may have.

Sincerely,

David R. Nissen  
Division Chief

---



# Hunt Research Corporation

9-10-09  
Founded 1979

JAMES W. HUNT, President

David Nissen  
Fire Chief  
Rural Fire Protection District  
14145 Campo Rd (Highway 94)  
Jamul Calif 91935

County of San Diego  
Department of Planning and Land Use  
Paul Dawson  
County Fire Marshal  
5201 Ruffin Road, Suite B  
San Diego Cal 92123

Gentlemen:

Subject: **SHORT FORM FIRE PROTECTION PLAN; LETTER REPORT;  
REVISED.**

Energia Sierra Juarez U.S. Transmission Gen-Tie Project (ESJ Gen-Tie.); Jacumba

## 1. INTRODUCTION:

This revised Fire Protection Plan letter report is being submitted as an evaluation, pursuant to the requirement of the Rural Fire Protection District (RFPD) Fire Chief, and the County DPLU, of the adverse environmental effects that the proposed Energia Sierra Juarez Gen-Tie (ESJ Gen-Tie) project may have from wildland fire and mitigation of those impacts to ensure that the project does not unnecessarily expose people or structures to a significant risk of loss, injury or death involving wildland fires. The use of the short form Fire Protection Plan has been approved by RFPD Fire Chief David Nissen, and by the DPLU County Fire Marshal, Paul Dawson. Revisions in the original plan, dated 5-22-09, have been made in this edition to comply with the comments of 7-15-09, from the DPLU Fire Marshal. The RFPD has approved this Fire Protection Plan.

## Emergency Response:

The project is within in the Rural Fire Protection District, who is the "Authority Having Jurisdiction". Staffing is by CALFIRE. Initial response is provided from Fire Station 43 at 1255 Jacumba Street, in Jacumba. Response distance is approximately 4 miles. The staffing currently includes two firefighters 24/7 year around plus 4 volunteers. This station has the following apparatus: A 1,000 GPM structural fire engine and a 1,800-gallon water tender. This station currently responds to about 7-10 calls per week. The additional responding Fire Companies for emergencies, are:



- CDF Whitestar Fire Station in Campo (staffed 24-7; CDF Schedule A contract).
- Campo Indian Reservation Fire Department.
- Boulevard Volunteer Fire Department; Volunteer.

The next closest Rural Fire Protection District Fire Engine is Lake Moreno, which is about a 20-minute response. This is also a volunteer Fire Station.

Other Fire Companies are available as needed per the County and State Mutual Aid response agreements.

## 2. PROJECT DESCRIPTION:

The ESJ Gen-Tie project is a high voltage generator tie line to connect new renewable wind power in Northern Baja Mexico into the existing Southwest Power Link transmission line. The line would be either a single circuit 500 kV line or double circuit 230 kV line, a fiber optic line, and a grounding cable, supported on steel lattice or steel monopole towers. Towers have a concrete base. There would be 3 to 5 structures up to about 150' high for lattice towers and up to 170' high for monopoles. There are no buildings. The Right of Way (ROW) is less than 1 mile long from the International Border to the terminus in the U.S. at a proposed San Diego Gas and Electric Co. (SDG&E) East County substation (ECO Substation). The ECO substation is 3.75 miles east of Jacumba, and is south of the Old Highway 80. The facilities in Mexico are out of the scope of this report and the proposed SDG&E substation would be subject to separate fire protection approvals

## 3. ENVIRONMENTAL SETTING:

### Location:

The site is in the O Neil Valley, approximately four miles Southeast of Jacumba and adjoining the border. This is Thomas Guide page # 430. It is approximately 2 miles southeast of the closest stick built structures. There is a trailer 0.28 miles southwest of the proposed 230 KV Gen-Tie line. The State CALFIRE FRAP fire hazard classification maps classify this area as a "Very High Fire Hazard Area".

### Topography:

The average slope of the property is less than 15%. The actual Right of Way appears to be substantially flat with a slight sloping. There are no hills on the right of way. There are hills offsite.



#### Geology:

Soil in the ROW appears to be dirt. The legal property access road would be a 24-foot wide dirt road, with a DG surface (see Section 5 below) leading from Old Highway 80 to the power line tie in to the future SDG&E substation.

#### Flammable Vegetation:

The vegetation on site is considered Semi-desert Chaparral. It appears to be a BEHAVE fuel model SH-2. It is observed to be about one foot high with some jackpots that are about five foot high. It has some spacing between vegetation. Refer to site photos attached.

#### Climate:

The temperatures in this area can reach an extreme maximum temperature between July and October. The maximum recorded temperature occurred in July, with a temperature of about 112 degrees f. Average maximum temperature in July-September was 92 degrees f in August. Winds used in the fire models were 50 mph at 20' for a fall fire and a 20-foot wind speed of 25 mph for a summer fire. Therefore wind driven fires can occur in times when weather is hot and fuel moistures are low. A 1000-acre fire started in Mexico burned across this site in 2006. Flame lengths were reportedly about 15'.

#### Environmental Issues:

EDAW, Inc, the Biology and Archeology consultant for ESJ U.S., reports that there is sensitive habitat (vegetation and wildlife) present in the Right Of Way. They also state there are Cultural sites in the Right of Way. Therefore, per EDAW, fuel modification cannot be done in areas of the Cultural sites, and machinery cannot be used for fuel modification along the ROW. Fuel Modification (other than the 30' around towers which would be done) cannot be done without providing required offsetting mitigation.

#### 4. WATER SUPPLY:

There are no buildings involved in this project and therefore there are no water requirements.

#### 5.ACCESS ROADS:

##### Location:

The Fire access road would be off Old Highway 80, and would be a dirt road. It will be a twenty eight foot (28') graded width which shall be improved to about 24' in width with decomposed granite (DG) where it connects from old Highway 80 to the power line tie in (this project) to the future SDG&E substation. A turnaround will be required within 150' of the termination of the road at the substation. Consultant recommends that this



preferably be at the termination of the road. A 20' wide, dirt, access road will be provided along the right of way for maintenance of the Gen-Tie line and for patrolling of the property. Road grade on the roads is estimated to be less than 10%.

#### 6. BUILDING CONSTRUCTION:

There will be no buildings in the scope of this project. There will only be steel towers and electrical lines. The closest structures are a trailer about 0.28 mile southwest of the property, and stick built structures about 2 miles west. The town of Jacumba is 3.75 miles west.

#### 7. FENCING:

There will be no fencing.

#### 8. FIRE PROTECTION SYSTEMS:

There are no buildings in this project so there are no Fire Protection systems required or necessary.

#### 9. AIR OPERATIONS:

The applicant shall obtain letters of approval from CALFIRE Air operations, due to the potential for the operation of CALFIRE aircraft in the area during a fire. In addition, there is a small airport in Jacumba. The towers will need to comply with any applicable FAA regulations, and may need warning lights on them due to proximity of the airport and the potential for Firefighting aircraft to operate in the area.

#### 10. DEFENSIBLE SPACE:

Per this Fire Protection Plan, this site will have 30 feet (30') of fuel modification on all sides of the towers. Within that 30 feet (30'), the area may be cleared, concreted, graveled or vegetation would be cut to 6 inches (6") high.

The PRC, Sections 4292 and 4293 Code require 10-foot (10') clearance from base of poles (or towers) and 10 feet (10') between vegetation and wires.

In addition, the CALFIRE Power Line Fire Prevention Field Guide, dated 10-08, and co authored by Sempra Energy, SDGE, and other power companies requires 10-foot (10') clearance from the base of poles (or towers), 10 feet (10') between vegetation and wires and marking of poles. The requirements in this guide would be complied with, as and where applicable to this line. This guide is on the Office of State Fire Marshal website at [OSFM.Fire.Ca.Gov](http://OSFM.Fire.Ca.Gov); click "programs", click "Wildland Fire Prevention Engineering", click "Power Line Fire Prevention Field Guide".



ESJ has agreed to provide 30' tower clearance, 10 feet (10') between vegetation and wires, and marking of towers. ESJ would also comply with any new, applicable, regulations by the PUC, CPUC, or other jurisdictional agencies.

It is the strong recommendation of the consultant that there must be no new plants, shrubs, trees, etc planted in the Right of Way or in the area 30 feet (30') on each side of the ROW, as this would increase the fire hazard and present a risk to the towers and the power lines, and can result in potentially causing arcing to the ground from wires during a fire on the ROW. Wires can also slap together during high winds and cause sparks to fall into vegetation. If new vegetation is mandated by the County for screening purposes, then there must be no new vegetation, including trees, in the ROW and 30 feet (30') on each side. In addition there must be no new vegetation, including trees, beyond the 30 feet (30') to each side of the ROW, and on the property, that is found on the Prohibited Plant List attached to this report.

It is understood, from EDAW consultants, that no fuel modification can be done in sensitive habitat, or archeological sites, or if otherwise prohibited, without permission of the County DPLU and the Resource Agencies. It is also understood that the Fire District can require additional Fuel Modification, upon inspection, subject to constraints of the sensitive habitat and Archeological sites. Per EDAW, machinery should not be used for Fuel Modification on the ROW due to the sensitive areas.

During Fuel Modification, consideration would be given, by applicant, to potentials for erosion and slope instability, in order to prevent damage to tower foundations.

#### 11. VEGETATION MANAGEMENT:

Prescribed defensible space would be maintained on at least an annual basis, prior to May 1, or more often as needed by the applicant. All present and future owners/operators must be put on legal notice by a legally binding recorded instrument as to the requirement to maintain the vegetation in a fire safe manner.

#### 12. FIRE BEHAVIOR MODELING

A computerized Fire Behavior Model is not required for this project per the Fire District, or the County DPLU.

However, BEHAVE modeling was done by the consultant to evaluate the on site fire risk and needed fuel modification. The SH-2 model was used. Vegetation canopy height was assumed to be 5'. The results are:



Fire	Flame Length	Rate of Spread	Spotting downwind
Summer	9.4'	0.33 MPH	0.5 miles
Fall	15.8'	1 MPH	1.2 miles

The spotting distance would be 0.4 miles.

The power lines are approximately 150 to 170' above grade.

Note: models are guidelines only. Actual fire behavior can be more or less intensive.

The modeling shows that airborne burning embers may reach a potentially habitable trailer, which is located off the property, about 0.28 miles to the southwest. This may require that a Fire Engine Crew go to that trailer during a fire to provide protection for it, and extinguish spot fires, during a wind driven fire.

### 13. FIRE DISTRICT REQUIREMENTS:

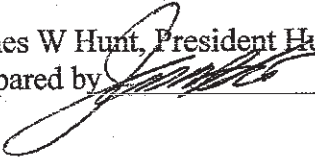
ESJ LLC agrees, and fully intends, to work with the Rural Fire Protection District Fire Chief to resolve any of his concerns and any Fire District requirements for equipment, mitigation fees, etc. All final approvals and agreements are to be obtained from the Fire Chief. The Fire District has approved this Fire Protection Plan.

### 14. SUMMARY/DISCLAIMER

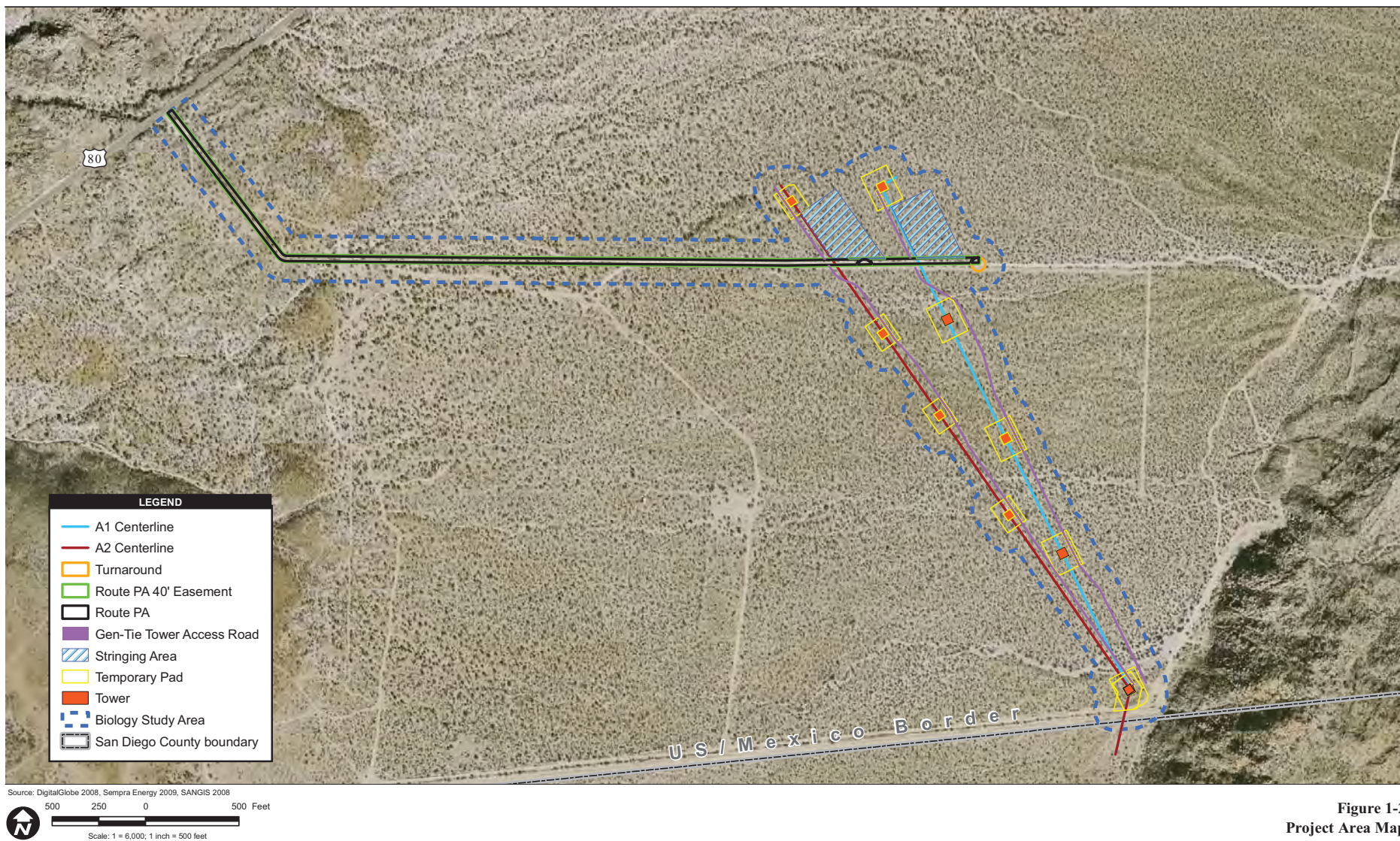
Engineering, Architecture, Landscape Architecture, design and construction are out of the scope of this plan and are the responsibility of others. Applicant may submit requests for review and approval of alternative materials and methods which have the same practical effect and equivalency as the materials and methods required or recommended in this plan.

As Fire is unpredictable and dynamic, this plan cannot guarantee that a fire will not occur or will not cause damage to property or injury or death to humans or animals. There are no guarantees made, expressed or implied, regarding the effectiveness or adequacy of any recommendations or requirements in this plan for all fire situations. However, the Fire Protection concepts proposed in this plan should lessen the impact upon the Fire District.

Any official Fire Protection requirements and approvals will be set forth by the RFPD and the County DPLU Fire Marshal.

James W Hunt, President Hunt Research Corporation  
Prepared by , President. Date 9-11-09





**Figure 1-2**  
**Project Area Map**



\_\_\_\_\_ Agreed to on  
behalf of ESJ U.S. Transmission LLC by (Signature, Date, and printed name)

Attach: Figure 1-2 Project Area Map

Attach: Site Photos

Attach: Prohibited Plant List



Site Photos: (fence in distance is Border. Top photo shows offsite trailer in distance)





## *Some Examples of Prohibited Plants*

Botanical Name	Common Name	Comment*
<b>Trees</b>		
<i>Abies species</i>	Fir	F
<i>Acacia species (numerous)</i>	Acacia	F, I
<i>Agonis juniperina</i>	Juniper Myrtle	F
<i>Araucaria species (A. heterophylla, A. araucana, A. bidwillii)</i>	Araucaria (Norfolk Island Pine, Monkey Puzzle Tree, Bunya Bunya)	F
<i>Callistemon species (C. citrinus, C. rosea, C. viminalis)</i>	Bottlebrush (Lemon, Rose, Weeping)	F
<i>Calocedrus decurrens</i>	Incense Cedar	F
<i>Casuarina cunninghamiana</i>	River She-Oak	F
<i>Cedrus species (C. atlantica, C. deodara)</i>	Cedar (Atlas, Deodar)	F
<i>Chamaecyparis species (numerous)</i>	False Cypress	F
<i>Cinnamomum camphora</i>	Camphor	F
<i>Cryptomeria japonica</i>	Japanese Cryptomeria	F
<i>Cupressocyparis leylandii</i>	Leyland Cypress	F
<i>Cupressus species (C. fobesii, C. glabra, C. sempervirens,)</i>	Cypress (Tecate, Arizona, Italian, others)	F
<i>Eucalyptus species (numerous)</i>	Eucalyptus	F, I
<i>Juniperus species (numerous)</i>	Juniper	F
<i>Larix species (L. decidua, L. occidentalis, L. kaempferi)</i>	Larch (European, Japanese, Western)	F
<i>Leptospermum species (L. laevigatum, L. petersonii)</i>	Tea Tree (Australian, Tea)	F
<i>Lithocarpus densiflorus</i>	Tan Oak	F
<i>Melaleuca species (M. linariifolia, M. nesophila, M. quinquenervia)</i>	Melaleuca (Flaxleaf, Pink, Cajeput Tree)	F, I
<i>Olea europea</i>	Olive	I
<i>Picea (numerous)</i>	Spruce	F
<i>Palm species (numerous)</i>	Palm	F, I
<i>Pinus species (P. brutia, P. canariensis, P. b. eldarica, P. halepensis, P. pinea, P. ...)</i>	Pine (Calabrian, Canary Island, Mondell, Aleppo, Italian Stone, Monterey)	F



## Some examples of Prohibited Plants

Botanical Name	Common Name	Comment
<i>radiata</i> , numerous others)		
<i>Platycladus orientalis</i>	Oriental arborvitae	F
<i>Podocarpus</i> species ( <i>P. gracilior</i> , <i>P. macrophyllus</i> , <i>P. latifolius</i> )	Fern Pine (Fern, Yew, Podocarpus)	F
<i>Pseudotsuga menziesii</i>	Douglas Fir	F
<i>Schinus</i> species ( <i>S. molle</i> , <i>S. terebenthifolius</i> )	Pepper (California and Brazilian)	F, I
<i>Tamarix</i> species ( <i>T. africana</i> , <i>T. aphylla</i> , <i>T. chinensis</i> , <i>T. parviflora</i> )	Tamarix (Tamarisk, Athel Tree, Salt Cedar, Tamarisk)	F, I
<i>Taxodium</i> species ( <i>T. ascendens</i> , <i>T. distichum</i> , <i>T. mucronatum</i> )	Cypress (Pond, Bald, Monarch, Montezuma)	F
<i>Taxus</i> species ( <i>T. baccata</i> , <i>T. brevifolia</i> , <i>T. cuspidata</i> )	Yew (English, Western, Japanese)	F
<i>Thuja</i> species ( <i>T. occidentalis</i> , <i>T. plicata</i> )	Arborvitae/Red Cedar	F
<i>Tsuga</i> species ( <i>T. heterophylla</i> , <i>T. mertensiana</i> )	Hemlock (Western, Mountain)	F
<b>Groundcovers, Shrubs &amp; Vines</b>		
<i>Acacia</i> species	Acacia	F, I
<i>Adenostoma fasciculatum</i>	Chamise	F
<i>Adenostoma sparsifolium</i>	Red Shanks	F
<i>Agropyron repens</i>	Quackgrass	F, I
<i>Anthemis cotula</i>	Mayweed	F, I
<i>Arbutus menziesii</i>	Madrone	F
<i>Arctostaphylos</i> species	Manzanita	F
<i>Arundo donax</i>	Giant Reed	F, I
<i>Artemisia</i> species ( <i>A. abrotanum</i> , <i>A. absinthium</i> , <i>A. californica</i> , <i>A. caucasica</i> , <i>A. dracunculus</i> , <i>A. tridentata</i> , <i>A. pycnocephala</i> )	Sagebrush (Southernwood, Wormwood, California, Silver, True tarragon, Big, Sandhill)	F
<i>Atriplex</i> species (numerous)	Saltbush	F, I
<i>Avena fatua</i>	Wild Oat	F
<i>Baccharis pilularis</i>	Coyote Bush	F
<i>Bambusa</i> species	Bamboo	F, I
<i>Bougainvillea</i> species	Bougainvillea	F, I
<i>Brassica</i> species ( <i>B. campestris</i> , <i>B. nigra</i> , <i>B. rapa</i> )	Mustard (Field, Black, Yellow)	F, I



## Some examples of Prohibited Plants

Botanical Name	Common Name	Comment*
<i>Bromus rubens</i>	Foxtail, Red brome	F, I
<i>Castanopsis chrysophylla</i>	Giant Chinquapin	F
<i>Cardaria draba</i>	Hoary Cress	I
<i>Carpobrotus species</i>	Ice Plant, Hottentot Fig	I
<i>Cirsium vulgare</i>	Wild Artichoke	F, I
<i>Conyza bonariensis</i>	Horseweed	F
<i>Coprosma pumila</i>	Prostrate Coprosma	F
<i>Cortaderia selloana</i>	Pampas Grass	F, I
<i>Cytisus scoparius</i>	Scotch Broom	F, I
<i>Dodonaea viscosa</i>	Hopseed Bush	F
<i>Eriodictyon californicum</i>	Yerba Santa	F
<i>Eriogonum species (E. fasciculatum)</i>	Buckwheat (California)	F
<i>Fremontodendron species</i>	Flannel Bush	F
<i>Hedera species (H. canariensis, H. helix)</i>	Ivy (Algerian, English)	I
<i>Heterotheca grandiflora</i>	Telegraph Plant	F
<i>Hordeum leporinum</i>	Wild barley	F, I
<i>Juniperus species</i>	Juniper	F
<i>Lactuca serriola</i>	Prickly Lettuce	I
<i>Larix species (numerous)</i>	Larch	F
<i>Larrea tridentata</i>	Creosote bush	F
<i>Lolium multiflorum</i>	Ryegrass	F, I
<i>Lonicera japonica</i>	Japanese Honeysuckle	F
<i>Mahonia species</i>	Mahonia	F
<i>Mimulus aurantiacus</i>	Sticky Monkeyflower	F
<i>Miscanthus species</i>	Eulalie Grass	F
<i>Muhlenbergia species</i>	Deer Grass	F
<i>Nicotiana species (N. bigelovii, N. glauca)</i>	Tobacco (Indian, Tree)	F, I
<i>Pennisetum setaceum</i>	Fountain Grass	F, I
<i>Perovskia atroplicifolia</i>	Russian Sage	F
<i>Phoradendron species</i>	Mistletoe	F
<i>Pickeringia montana</i>	Chaparral Pea	F
<i>Rhus (R. diversiloba, R. laurina, R. lentii)</i>	Sumac (Poison oak, Laurel, Pink Flowering)	F
<i>Ricinus communis</i>	Castor Bean	F, I
<i>Rhus Lentii</i>	Pink Flowering Sumac	F



## Some examples of Prohibited Plants

Botanical Name	Common Name	Comment*
<i>Rosmarinus species</i>	Rosemary	F
<i>Salvia species (numerous)</i>	Sage	F, I
<i>Salsola australis</i>	Russian Thistle	F, I
<i>Solanum Xantii</i>	Purple Nightshade (toxic)	I
<i>Silybum marianum</i>	Milk Thistle	F, I
<i>Thuja species</i>	Arborvitae	F
<i>Urtica urens</i>	Burning Nettle	F
<i>Vinca major</i>	Periwinkle	I

\*F = flammable, I = Invasive

### NOTES:

1. Plants on this list that are considered invasive are a partial list of commonly found plants. There are many other plants considered invasive that should not be planted in a fuel modification zone and they can be found on The California Invasive Plant Council's Website [www.cal-ipc.org/ip/inventory/index.php](http://www.cal-ipc.org/ip/inventory/index.php). Other plants not considered invasive at this time may be determined to be invasive after further study.
2. For the purpose of using this list as a guide in selecting plant material, it is stipulated that all plant material will burn under various conditions.
3. The absence of a particular plant, shrub, groundcover, or tree, from this list does not necessarily mean it is fire resistive.
4. All vegetation used in Vegetation Management Zones and elsewhere shall be subject to approval of the Fire Marshal.
5. Landscape architects may submit proposals for use of certain vegetation on a project specific basis. They shall also submit justifications as to the fire resistivity of the proposed vegetation.
6. This list was prepared by Hunt Research Corporation and Dudek and associates and reviewed by, Scott Franklin Consulting co.





ERIC GIBSON  
DIRECTOR

## County of San Diego

### DEPARTMENT OF PLANNING AND LAND USE FIRE SERVICES SECTION

5201 RUFFIN ROAD, SUITE B, SAN DIEGO, CALIFORNIA 92123-1666  
INFORMATION (858) 694-2960  
TOLL FREE (800) 411-0017  
[www.sdcountry.ca.gov/dplu](http://www.sdcountry.ca.gov/dplu)

November 25, 2009

County of San Diego  
Department of Planning and Land Use  
5201 Ruffin Road, Suite B  
San Diego, CA 92123

Attn: Patrick Brown, Project Planner

RE: MUP 09-008 – ESJ US GEN-TIE  
San Diego Rural Fire Protection District  
**Revised Fire Protection Plan - incomplete**

We have examined the revised Fire Protection Plan (FPP) – Letter Report prepared by Hunt Research Corporation, dated September 10, 2009, for compliance with the County Fire Code, County Building Code and CCR Title 14, "SRA Fire Safe Regulations". The proposed project would consist of a 2 mile long single circuit 500 kV line or a double-circuit 230 kV line supported of three to five 150-foot steel lattice towers or 170-foot steel monopoles in area approximately 4 miles east of Jacumba.

All corrections identified in our letter dated July 8, 2009 have been incorporated into the revised FPP. We again support the consultant's recommendation that no new vegetation be planted for screening purposes that would compromise fuel management.

We have not received documentation of acceptance by the local fire authority – San Diego Rural Fire Protection District – as of this date. We will be in a position to accept it when the local fire authority does.

Paul Dawson, Fire Marshal  
San Diego County Fire Authority  
Department of Planning and Land Use

c: Dave Nissen, Fire Chief, San Diego Rural Fire Protection District



June 17, 2011

Iain Fisher, CPUC at iain.fisher@cpuc.ca.gov  
Greg Thomsen, BLM at ecosub@dudek.com  
c/o Dudek  
605 Third Street  
Encinitas, CA 92024

Re: DOI-BLM-CA-D070-2010-0027-EIS (ECO Sub)  
DOI-BLM-CA-D070-2008-0040-EIS (Tule Wind)  
Comments on Joint DEIR/DEIS dated December 24, 2010

Dear Mssrs. Fisher and Thomsen:

We represent the San Diego Rural Fire Protection District ("District") in its review of the Joint DEIR/DEIS listed above (the "DEIR/DEIS"). This letter supplements our letters to you dated January 4, 2011 and March 4, 2011 (together, the "Letters") regarding the analyses of impacts and adequacy of mitigation provided in Section D.15 Fire and Fuels Management of the DEIR/DEIS as those analyses and mitigation measures relate to the ESJ Gen-Tie Project. The comments in the Letters remain unaltered as they relate to the Tule Wind Project and the ECO Substation Project. The District appreciates the opportunity to further comment upon the DEIR/DEIS.

The DEIR/DEIS identifies the potential for all three projects to significantly increase the probability of wildfires. Mitigation Measures are provided in the DEIR/DEIS with the intent to mitigate the increased probability of wildfires.

The District has worked with the applicant for the ESJ Gen-Tie Project to further modify the Mitigation Measures to address the concerns expressed in our Letters. A final set of Mitigation Measures acceptable to the District is attached to this letter as Exhibit "A".

To clarify for the record, the applicant for the ESJ Gen-Tie Project has entered into a development agreement with the District. In addition, the applicant has obtained the District's approval of a project-specific Fire Protection Plan that, among other things, satisfies the requirements of Mitigation Measure FF-4.

The District concludes that the applicant for the ESJ Gen-Tie Project will have adequately mitigated for the increased probability of wildfire through timely satisfaction of each and every requirement of the Mitigation Measures attached as Exhibit "A", the development agreement, and the project-specific Fire Protection Plan. Further, the District concludes that through satisfaction of each and



Mssrs. Fisher and Thomsen

June 17, 2011

Page 2

every requirement of those Mitigation Measures, implementation of the project design features described in the DEIR/DEIS where applicable, and satisfaction of each and every requirement of the development agreement and project-specific Fire Protection Plan, the ESJ Gen-Tie Project will not significantly obstruct fire protection activities and that the applicant has adequately addressed the additional fire risks posed by the project.

Very truly yours,



Cynthia L. Eldred, Esq.

THE LAW OFFICE OF CYNTHIA L. ELDRED

Attachment

cc: (via electronic mail only)  
San Diego Rural Fire Protection District  
Patrick P. Brown, Project Planner, County of San Diego  
Taylor Miller, Esq., Counsel for Energia Sierra Juarez U.S. Transmission LLC  
Alberto Abreu, Director - Project Development, Sempra Generation



Exhibit "A"

	<b>EDITED MM TEXT FROM DRAFT EIR/EIS; As Applicable to ESJ Gen-Tie Line Project</b>
MM FF-1	<p><b>Develop and implement a Construction Fire Prevention/Protection Plan.</b> ESJ shall develop a Construction Fire Prevention/Protection Plan for the ESJ Gen-tie line Project and monitor construction activities to ensure implementation and effectiveness of the plan. The Plan reviewer shall be the Rural Fire Protection District (RFPD). ESJ shall provide a draft copy of this plan to the RFPD at least 90 days before the start of any construction activities. The final plan will be approved by the RFPD prior to the initiation of construction activities and provided to the applicant for implementation during all construction activities.</p> <p>At minimum, the plan will include the following:</p> <ul style="list-style-type: none"> <li>• Applicable components of the SDG&amp;E Wildland Fire Prevention and Fire Safety Electric Standard Practice (2009)</li> <li>• Procedures for minimizing potential ignition <ul style="list-style-type: none"> <li>○ vegetation clearing</li> <li>○ fuel modification establishment</li> <li>○ parking requirements</li> <li>○ smoking restrictions</li> <li>○ hot work restrictions</li> </ul> </li> <li>• Identification of an on-site Fire Coordinator and definition of their responsibilities</li> <li>• Identification of appropriate fire suppression equipment on site at all times work is occurring</li> <li>• The applicable requirements of the California Code of Regulations (CCR), Title 14, Article 8, Section 918 (b) "Fire Protection" for private land portions</li> <li>• On-site access road widths as provided in a Fire Protection Plan approved by the RFPD. Emergency response and reporting procedures</li> <li>• Emergency contact information</li> <li>• Worker education materials; kick-off and tailgate meeting schedules</li> <li>• Other information as provided by the Rural Fire Protection District</li> </ul> <p>Additional restrictions will include the following:</p> <ul style="list-style-type: none"> <li>• During the construction phase of the project, the applicant shall implement ongoing fire patrols. The applicant shall maintain fire patrols during construction hours and for one (1) hour after end of daily construction, and hotwork.</li> <li>• ESJ shall comply with County Code Title 9 regarding brush management. ESJ</li> </ul>



	<p align="center"><b>EDITED MM TEXT FROM DRAFT EIR/EIS; As Applicable to ESJ Gen-Tie Line Project</b></p>
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and/or its contractor shall clear brush and dead and decaying vegetation from the work area prior to starting construction and/or maintenance work. The work area includes only those areas where personnel are active or where equipment is in use or stored, and may include portions of the transmission ROW, construction laydown areas, pull sites, access roads, parking pads, and any other sites adjacent to the ROW where personnel are active or where equipment is in use or stored.

- Combustible storage and trash shall be properly stored in a clear area with fuel modification around it, and be away from turbines and the substation. Such storage shall be orderly and be removed from the site as soon as possible.
- Provision of maps indicating the location of the site. Fire Suppression Resource Inventory: The applicant shall update in writing the 24-hour contact information and on-site fire suppression equipment, tools, and personnel list on a quarterly basis and provide it to the Rural Fire Protection District.
- Red Flag Warning restrictions: During Red Flag Warning events, as issued daily by the National Weather Service in State Responsibility Areas (SRAs) all non-essential, non-emergency construction and maintenance activities shall cease or be required to operate under a Hot Work Procedure.
- The applicant and contractor personnel shall be informed of changes to the Red Flag event status as stipulated by the RFPD and CAL FIRE
- All construction crews and inspectors shall be provided with radio and/or cellular telephone access that is operational throughout the project area to allow for immediate reporting of fires. Communication pathways and equipment shall be tested and confirmed operational each day prior to initiating construction activities at each construction site. All fires shall be reported to the fire agencies with jurisdiction in the project area immediately upon detection.
- Each crew member shall be trained in fire prevention, initial attack firefighting, and fire reporting. Each member shall carry at all times a laminated card listing pertinent telephone numbers for reporting fires and defining immediate steps to take if a fire starts. Information on contact cards shall be updated and redistributed to all crew members as needed, and outdated cards destroyed, prior to the initiation of construction activities on the day the information change goes into effect.
- Each member of the construction crew shall be trained and equipped to extinguish small fires with hand-held fire extinguishers in order to prevent them from growing into more serious threats. Each crew member shall at all times be within 100 yards of a vehicle containing equipment necessary for fire suppression as outlined in the final Construction Fire Prevention/Protection Plan.

ESJ shall fully implement the plan during all construction and maintenance



	<b>EDITED MM TEXT FROM DRAFT EIR/EIS; As Applicable to ESJ Gen-Tie Line Project</b>
	activities. All construction work on ESJ Gen-tie line Project shall follow the approved Construction Fire Prevention/Protection Plan guidelines and commitments and plan requirements are to be incorporated into the standard construction contracting agreements for the construction of the ESJ Gen-tie line Project. Primary plan enforcement implementation responsibility shall remain with ESJ and be monitored by the Rural Fire Protection District.
MM FF-2	<p><b>Elements of SDG&amp;E's Wildland Fire Prevention and Fire Safety Electric Standard Practice (July 1, 2009), for inclusion in the Customized Fire Protection Plan for Operation of the Project (MM FF-4).</b></p> <p>In developing the Customized Fire Protection Plan for Operation of the Project (FF-4), ESJ will incorporate the relevant and applicable portions of SDG&amp;E's Wildland Fire Prevention and Fire Safety Electric Standard Practice (July 1, 2009). Such practice elements will be implemented during all operation and maintenance work associated with the ESJ Gen-tie line Project for the life of the Project pursuant to the Customized Fire Protection Plan requirements.</p> <p>Important fire safety concepts that will be included in the Customized Fire Protection Plan are as follows:</p> <ul style="list-style-type: none"> <li>• Guidance on where maintenance activities may occur (which should be limited to non-vegetated areas, cleared access roads, and work pads that are approved as part of the project design plans)</li> <li>• Fuel modification buffers as may be required by the FPP</li> <li>• When vegetation work will occur (prior to any other work activity)</li> <li>• Timing of vegetation clearance work to reduce likelihood of ignition and or fire spread</li> <li>• Coordination procedures with fire authority</li> <li>• Personnel fire fighting training and provision of fire suppression equipment</li> <li>• Red Flag Warning restrictions for operation and maintenance work</li> <li>• Identification of an on-site Fire Coordinator and definition of their responsibilities</li> <li>• In order to easily communicate immediate fire incidence during operation or maintenance of the project, all crews and inspectors shall be equipped with radio and/or cellular telephone access that is operational throughout the project area to allow for immediate reporting of fires and open communication pathways shall be established prior to energizing the project.</li> <li>• ESJ shall perform visual inspections using telescopic equipment on all of project structures supporting overhead lines annually. If visual inspection does not reasonably allow inspection of project structures, then ESJ shall perform climbing inspections to supplement such visual inspections. ESJ will keep a</li> </ul>



	<p><b>EDITED MM TEXT FROM DRAFT EIR/EIS; As Applicable to ESJ Gen-Tie Line Project</b></p>
	<p>detailed inspection log of inspections, and any potential structural weaknesses or imminent component failures shall be acted upon immediately. The inspection log will be maintained on-site and available for review by the RFPD upon request.</p> <ul style="list-style-type: none"> <li>• Incorporation of the San Diego Rural Fire Protection District reviewed and approved Response Plan mapping and assessment.</li> <li>• Provision of site maps indicating the location of the site and “as-built” maps after completion of construction. Other information as provided by the San Diego Rural Fire Protection District.</li> </ul> <p>ESJ will provide a draft copy of the Customized Fire Protection Plan for operation of the Project, including the incorporated elements of SDG&amp;E’s Wildland Fire Prevention and Fire Safety Electric Standard Practice, to the RFPD for comment a minimum of 90 days prior to the start of any construction activities. The Customized Fire Protection Plan will be approved by the RFPD prior to energizing the project and be provided to the applicant for implementation during all operation and maintenance activities.</p>
MM FF-3	<p><b>Development Agreement with Rural Fire Protection District.</b> Provide funding for the training and acquisition of necessary firefighting equipment and services to Rural Fire Protection District to improve the response and firefighting effectiveness near electrical transmission lines, and aerial infrastructure based on fire protection needs. Although not implementable on BLM or other federal land, the local fire authority will respond through mutual aid to wildfires within its jurisdiction, regardless of land ownership designation. Funding would be provided through a Development Agreement between ESJ and the Rural Fire Protection District, which shall be executed prior to construction.</p>
MM FF-4	<p><b>Customized Fire Protection Plan for Operation and Maintenance of the Project.</b> ESJ will prepare and submit a Fire Protection Plan for Operation and Maintenance to the RFPD for approval. This plan shall include required elements listed in Mitigation Measure FF-2 and, at minimum, the following:</p> <ul style="list-style-type: none"> <li>• San Diego County FPP Requirements (<a href="http://www.sdcounty.ca.gov/dplu/docs/Fire-Report-Format.pdf">http://www.sdcounty.ca.gov/dplu/docs/Fire-Report-Format.pdf</a>)</li> <li>• Rural Fire Protection District Requirements: <ul style="list-style-type: none"> <li>○ Provisions for fire safety and prevention</li> <li>○ Site security and access</li> <li>○ Emergency shut-down provisions</li> <li>○ Fuel modification plan</li> <li>○ Access road widths and surfacing</li> <li>○ Emergency drill participation</li> </ul> </li> </ul>



	<b>EDITED MM TEXT FROM DRAFT EIR/EIS; As Applicable to ESJ Gen-Tie Line Project</b>
	The final FPP is to be approved by the RFPD prior to construction.
MM FF-5	
MM FF-6	<b>De-Energize Electrical System</b> - ESJ shall immediately de-energize the electrical collector and transmission systems during fire emergencies at the direction of SDG&E. The fire agency liaison will coordinate with the SDG&E liaison during a fire incident to identify which, if any, particular electrical lines need to be de-energized. Appropriate fire agencies responding to the incident shall be immediately notified of the line de-energizing. Additionally, ESJ shall provide all appropriate local, state, and federal fire dispatching agencies with an on-call contact person (Fire Coordinator) who has the authority to shut down the line in areas affected by a fire. If the transmission line is de-energized, prior to re-energizing ESJ shall notify and receive approval from the SDG&E liaison and fire agency liaison representing the responsible fire agencies.



Appendix B.11 County of San Diego Department of Planning and Land Use  
Memorandum from Jim Bennett, Groundwater Geologist, to Patrick  
Brown, Project Planner, regarding groundwater supply (March 4, 2010)

Appendix B.12 County of San Diego Department of Planning and Land Use Form 399W,  
Project Water Availability Form, signed by the Jacumba Community  
Services District on July 8, 2010









Memorandum

TO: Patrick Brown, Project Planner  
FROM: Jim Bennett, Groundwater Geologist  
SUBJECT: Groundwater Supply Options; Project Number P09-008  
DATE: March 4, 2010

**GROUNDWATER RESOURCES**

Jim Bennett, County Groundwater Geologist, has reviewed the most recent information submitted from the applicant in regard to where the applicant plans to obtain the approximately 780,000 gallons (2.4 acre-feet) of water necessary for the six-month construction phase of this project. The applicant has indicated that they are exploring purchasing groundwater offsite from a well (known as JCSD Well #6) owned by the Jacumba Community Services District (JCSD).

Purchasing water from water districts or private individual well owners outside of the County Water Authority (CWA) would be considered a "groundwater extraction operation" as defined within the County Zoning Ordinance (Definition G., Section 1810, 6552, and 6654) and would require obtaining a Major Use Permit (MUP) from the County for the operation. The JCSD would be responsible for obtaining the MUP since they are the owner of the property containing the well in which groundwater would be extracted for sale.

If groundwater is proposed from an on-site well rather than obtaining groundwater from the JCSD, there would be no groundwater investigation requirements. The basin is located in a completely undeveloped region of the County. Therefore, the pumping of approximately 2.4 acre-feet of water needed for the project in a basin with no other known groundwater users would have a less than significant impact on groundwater resources.

**CEQA Analysis of the Groundwater Extraction Operation**

The following analysis is provided to evaluate the impacts to groundwater resources from obtaining water for the project from the JCSD. It is understood that water would be supplied to the project from JCSD Well #6. This well is a non-potable well due to elevated sulfide and fluoride concentrations in the water. Approximately 2,500 gallons of water a day would be supplied, six days a week, for approximately six months. This would amount to approximately 780,000 gallons of water (2.4 acre-feet).



### **Applicable Groundwater Regulations**

The County Guidelines for Determining Significance – Groundwater Resources contain a series of thresholds for determining significance for both water quantity and water quality. Since the water proposed for this project is not for potable use, the water quality threshold is not applicable. To evaluate cumulative impacts to groundwater resources, a water balance analysis is typically required. However, due to the limited amount of groundwater proposed and the temporary use, a water balance analysis is not required. To evaluate off-site well interference as a result of this project, the following guideline for determining significance shall be used:

*As an initial screening tool, offsite well interference will be considered a significant impact if after a five year projection of drawdown, the results indicate a decrease in water level of 20 feet or more in the offsite wells. If site-specific data indicates water bearing fractures exist which substantiate an interval of more than 400 feet between the static water level in each offsite well and the deepest major water bearing fractured in the well(s), a decrease in saturated thickness of 5% or more in the offsite well would be considered a significant impact.*

### **Summary of Aquifer Test from JCSD #6**

The project intends to receive its groundwater from the JCSD Well #6, located on the western edge of the town of Jacumba. JCSD Well #6 was drilled in April 2003 to a depth of 465 feet below ground surface (bgs). The well was cased to a depth of 113 feet bgs. The well is screened from 113 feet to 465 feet bgs entirely within fractured bedrock.

A 24 hour step-drawdown test was conducted by Fain Drilling on April 24, 2003 to obtain an approximate production rate for the well. Drawdown and recovery plots are provided as attached Figures 1 and 2 to this document. The well was pumped at 200 gallons per minute (gpm), and stepped up to 300, 400, and then 600 gallons per minute after six hours of pumping. At 12 hours, the water level reached 92 feet bgs and remained at that level until the end of the 24 hour well test. The water level after 5.6 hours of recovery fully recovered to 3 feet bgs. A total of approximately 759,000 gallons of water was pumped from the well in 24 hours. It is likely the entire 780,000 gallons of water the project needs could be produced from this well in 24 hours.

### **Calculation of Offsite Drawdown**

The nearest offsite well is JCSD Well#4, located 60 feet the southeast of JCSD Well#6. Therefore, impacts would be considered significant, if drawdown in this well was 20 feet after five years of pumping. This project is anticipated to produce approximately 780,000 gallons of water in six months, and the following calculations provide drawdown anticipated to occur in JCSD Well#4 in this six month period.

Aquifer transmissivity was first estimated using the Cooper-Jacobs approximation to the Theis equation as follows:



$$T = \frac{2.3 \times Q}{4 \times \pi \times \Delta s}$$

Where:

$T =$	745	Transmissivity (feet <sup>2</sup> /day)
$Q =$	101,711	average pumping rate of 529 gpm (feet <sup>3</sup> /day [multiply gpm by 193])
$\pi =$	3.14	pi
$\Delta s =$	25	the change in residual drawdown over 1 logarithm of time (ft)

Reference: Cooper, H.H., Jr. and C.E. Jacobs. 1946. A Generalized Graphical Method for Evaluating Formation Constraints and Summarizing Well Field History. Transactions, American Geophysical Union 27:526-34.

Predicted drawdown to occur in JCSD Well#4 after six months of pumping JCSD Well#6 at a rate of 1.5 gpm required to produce 780,000 gallons over six months was calculated using the Cooper Jacob Modified Theis Non-Equilibrium Equation as follows:

$$s = \frac{0.183 Q}{T} \times \frac{\log \frac{2.25 T t}{r^2 S}}$$

Where:

$s =$	0.3	Predicted drawdown at JCSD Well#4 (feet)
$Q =$	288.75	cubic feet per day (multiply gpm * 192.5 to convert)
$T =$	745	feet squared per day
$t =$	182.5	time (days)
$r =$	60	distance from pumping well (feet)
$S =$	0.001	Storativity (dimensionless)

Reference: Cooper, H.H., Jr. and C.E. Jacobs. 1946. A Generalized Graphical Method for Evaluating Formation Constraints and Summarizing Well Field History. Transactions, American Geophysical Union 27:526-34.

Drawdown in JCSD Well#4 is predicted to be 0.3 feet after six months of pumping required for the project. This would be considered to be a less than significant impact based on the well interference threshold.

### Cumulative Groundwater Impacts

The County has historical water level records (June 1990 to July 2007) from JCSD Well #4, located approximately 60 feet to the southeast of JCSD Well #6 (see Figure 3). According to Tom Lindemeyer of the JCSD, this well is screened in the shallow alluvial aquifer overlying the bedrock aquifer to a depth of about 60 feet bgs. The water levels have varied from 1.8 feet bgs in 1996 to 22.5 feet bgs in 2005. The water level declines noted between 1998 and 2005 from an extended drought period recovered from the well above-average rainfall of 2004-2005. The most recent water level collected in July 2007 indicated water levels at 7.7 feet bgs. This well continues to be an active production well for the potable needs of the JCSD. Cumulative impacts are considered less than significant since water levels do not show any indications of an overdraft



condition, and the amount of additional drawdown from groundwater pumping for this project would have a less than significant effect on the surrounding offsite wells.

Please contact Jim Bennett, County Groundwater Geologist, at 858-694-3820 if you have any questions regarding these comments.



Figure 1  
JCSD#6: Drawdown

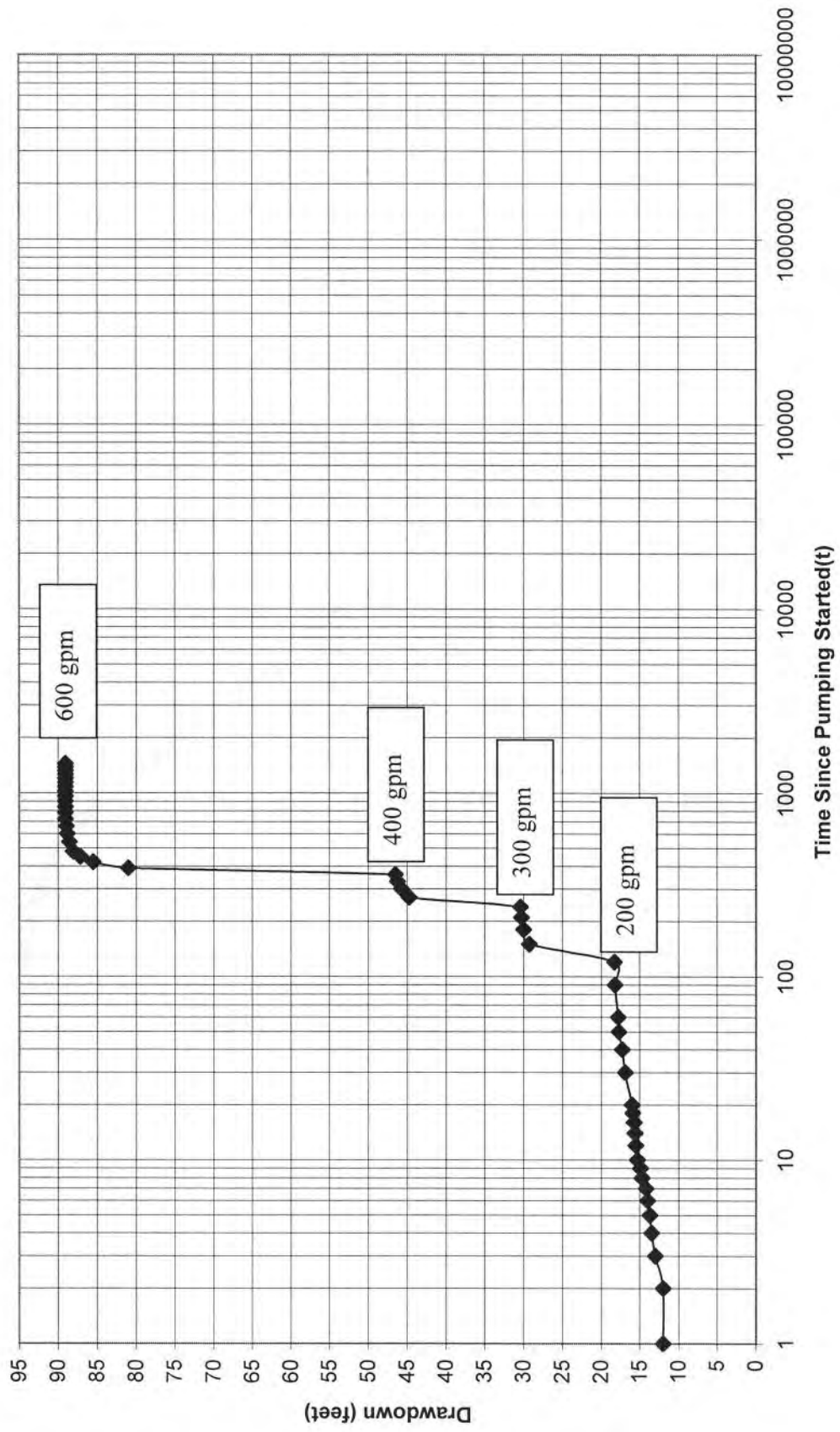




Figure 2  
JCSD#6: Recovery

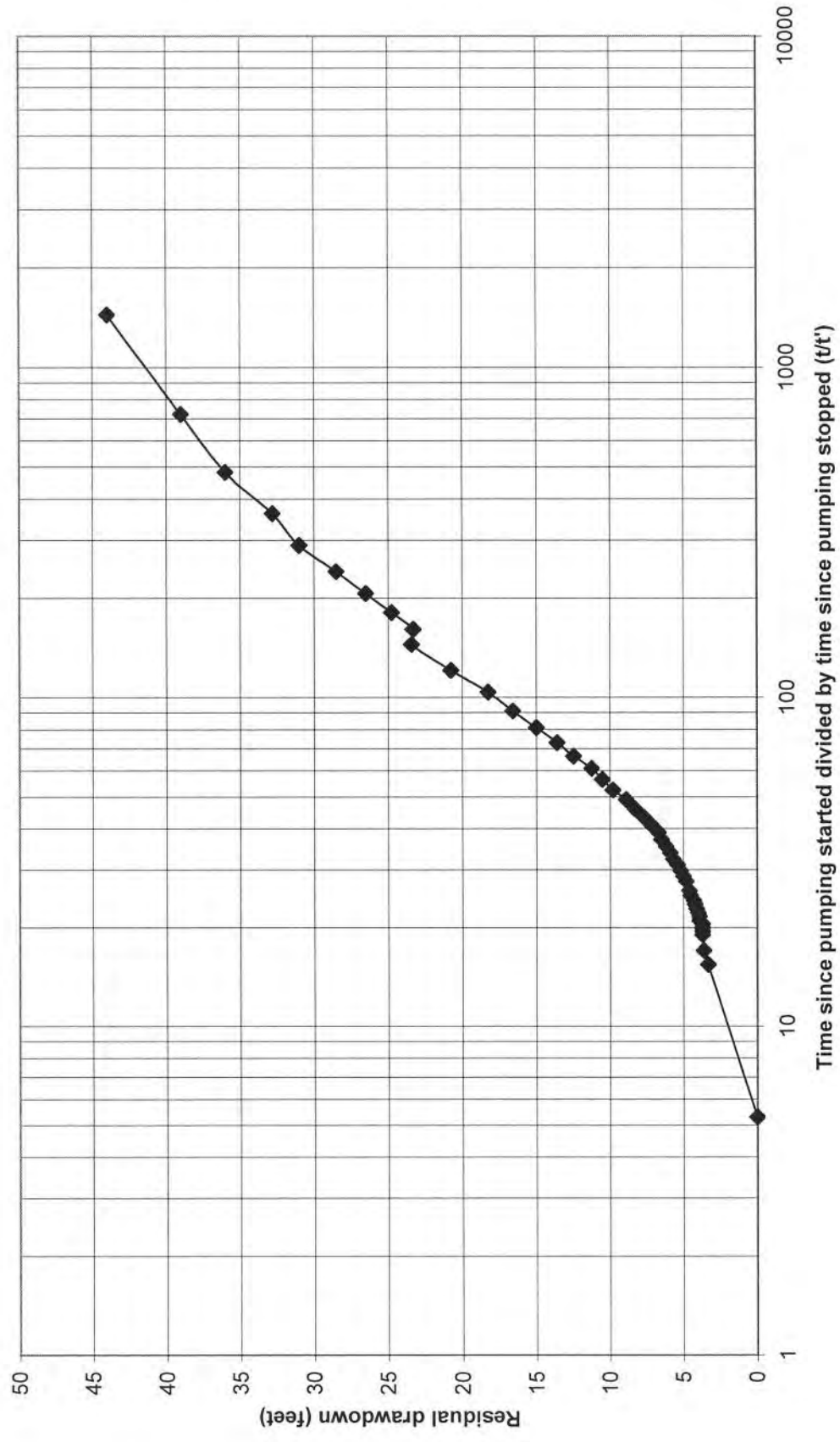
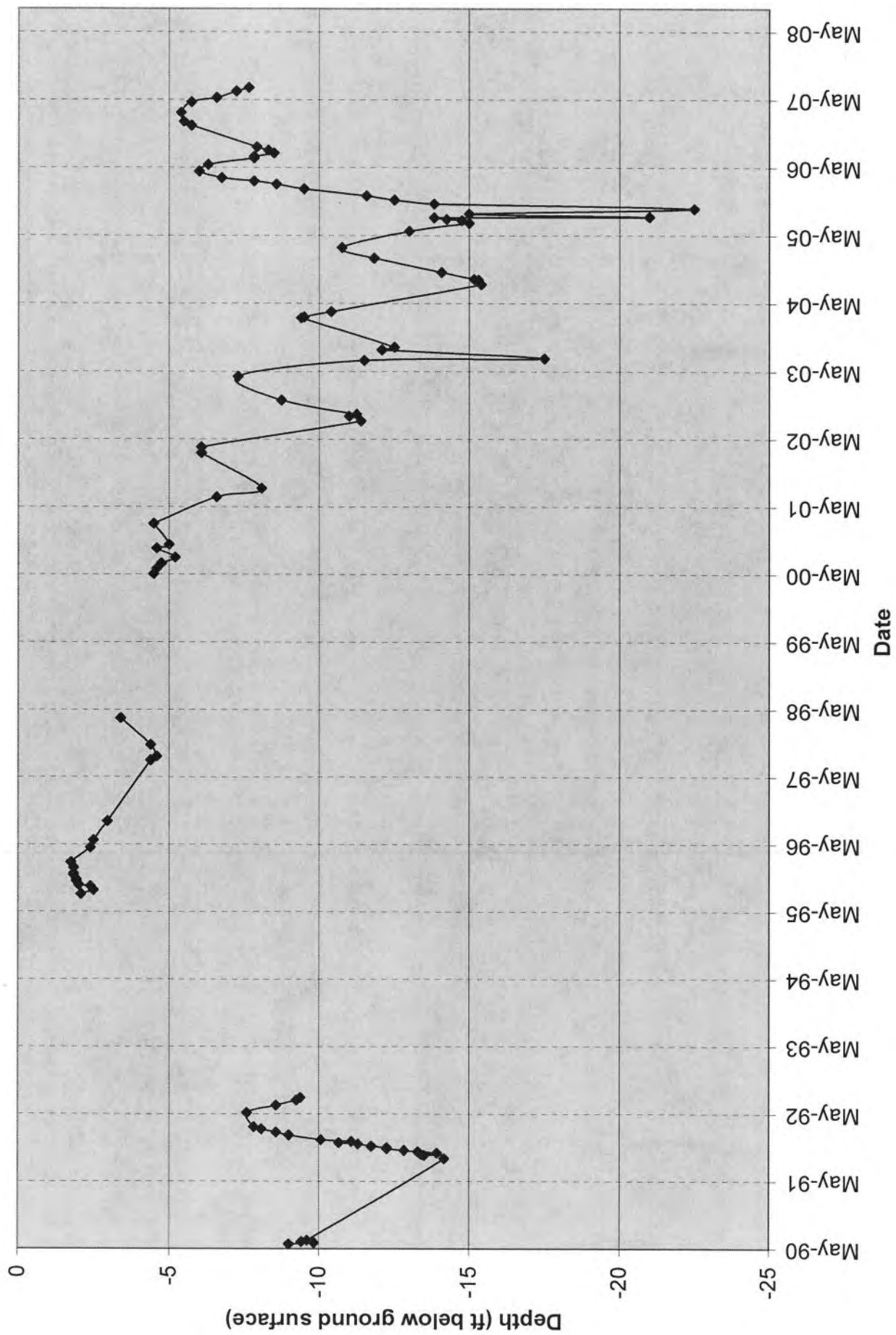




Figure 3  
JCSD Well #4 Hydrograph







COUNTY OF SAN DIEGO  
DEPT. OF PLANNING & LAND USE  
6201 RUFFIN ROAD, SUITE D  
SAN DIEGO, CA 92123-1680  
(619) 696-5081 • (619) 257-6770

# PROJECT FACILITY AVAILABILITY FORM

WATER

W

Please type or use pen

ESJ U.S. Transmission, LLC (619) 696-1824

Owner's Name Phone

101 Ash St., HQ08B

Owner's Mailing Address Street

San Diego CA 92101

City State Zip

ORG \_\_\_\_\_

ACCT \_\_\_\_\_

ACT \_\_\_\_\_

TASK \_\_\_\_\_

DATE \_\_\_\_\_

AMT \$ \_\_\_\_\_

DISTRICT CASHIER'S USE ONLY

## SECTION 1. PROJECT DESCRIPTION

## TO BE COMPLETED BY APPLICANT

- A ☐ Major Subdivision (TM) ☐ Specific Plan or Specific Plan Amendment  
☐ Minor Subdivision (T/M) ☐ Certificate of Compliance  
☐ Boundary Adjustment  
☒ Rezone (Reclassification) from \_\_\_\_\_ to \_\_\_\_\_ zone  
☒ Major Use Permit (MUP), purpose: Appl. Water from well  
☐ Time Extension... Case No. \_\_\_\_\_  
☐ Expired Map... Case No. \_\_\_\_\_  
☐ Other \_\_\_\_\_

Assessor's Parcel Number(s)  
(Add extra if necessary)

6	6	0

0	4	0

3	2

- B ☐ Residential Total number of dwelling units \_\_\_\_\_  
☐ Commercial Gross floor area \_\_\_\_\_  
☐ Industrial Gross floor area \_\_\_\_\_  
☒ Other Gross floor area 0

Thomas Bros. Page 1321 Grid G6

1266 Railroad Street

Project address Street

Mountain Empire 91934

Community Planning Area/Subregion Zip

- C ☐ Total Project acreage 0 Total number of lots 0

- D Is the project proposing the use of groundwater? ☒ Yes ☐ No  
 Is the project proposing the use of reclaimed water? ☐ Yes ☒ No

Owner/Applicant agrees to pay all necessary construction costs, dedicate all district required easements to extend service to the project and  
 COMPLETE ALL CONDITIONS REQUIRED BY THE DISTRICT.

Applicant's Signature: \_\_\_\_\_ Date: 7/8/10

Address: 101 Ash St., HQ08B, San Diego CA, 92101 Phone: (619) 696-1824

(On completion of above, present to the district that provides water protection to complete Section 2 below.)

## SECTION 2: FACILITY AVAILABILITY

## TO BE COMPLETED BY DISTRICT

District Name: Jacumba Community Service District (Service area \_\_\_\_\_)

- A ☒ Project is in the district.  
☐ Project is not in the district but is within its Sphere of Influence boundary, owner must apply for annexation.  
☐ Project is not in the district and is not within its Sphere of Influence boundary.  
☐ The project is not located entirely within the district and a potential boundary issue exists with the \_\_\_\_\_  
 District.
- B ☒ Facilities to serve the project ☒ ARE ☐ ARE NOT reasonably expected to be available within the next 5 years based on the  
 capital facility plans of the district. Explain in space below or on attached \_\_\_\_\_ (Number of sheets).  
☐ Project will not be served for the following reason(s): \_\_\_\_\_
- C ☐ District conditions are attached. Number of sheets attached: \_\_\_\_\_  
☐ District has specific water reclamation conditions which are attached. Number of sheets attached: \_\_\_\_\_  
☐ District will submit conditions at a later date.
- D ☒ How far will the pipeline(s) have to be extended to serve the project? 0

This Project Facility Availability Form is valid until final discretionary action is taken pursuant to the application for the proposed project or until it is  
 withdrawn, unless a shorter expiration date is otherwise noted.

Authorized signature: Tom Lindermeier Print name: Tom Lindermeier

Print title: GENERAL MANAGER Phone: 619-766-4359 Date: 7-8-10

NOTE: THIS DOCUMENT IS NOT A COMMITMENT OF SERVICE OR FACILITIES BY THE DISTRICT  
 On completion of Section 2 by the district, applicant is to submit this form with application to:  
 Zoning Counter, Department of Planning and Land Use, 6201 Ruffin Road, San Diego, CA 92123



## Appendix B.13 Phase 1 Environmental Site Assessment (AECOM 2009)









Prepared for:  
**Sempra Global**  
San Diego, California



Phase I Environmental Site Assessment of  
360 Acres of Vacant Land in Support of the  
Energía Sierra Juárez Project, Near Old Highway  
80, Unincorporated San Diego County,  
California

AECOM, Inc.  
April 2009  
Document Number: 02450-063-100



Prepared for:  
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80, Unincorporated San Diego County,  
California**

AECOM, Inc.  
April 2009  
Document Number: 02450-063-100



## EXECUTIVE SUMMARY

Sempra Global (Sempra) contracted with AECOM, Inc. (AECOM) to perform a Phase I Environmental Site Assessment (ESA) of the Energía Sierra Juárez project site comprising approximately 360 acres of vacant undeveloped desert land located in the southeastern corner of San Diego County near the Mexican border, approximately ½ mile south of Old Highway 80, and approximately three miles east of the town of Jacumba, San Diego County, California (subject property). This Phase I ESA was performed in conformance with the general scope and limitations of American Society for Testing and Materials (ASTM) Standard Practice E 1527-05 for ESAs. Exceptions to, or deletions from, this practice are described in Section 1.3 of this report.

This assessment took place between March 12 and April 10, 2009, with the site visit occurring on March 16, 2009. The rectangular-shaped property consists entirely of vacant undeveloped desert land. The terrain of the subject property varies considerably. The eastern portion of the subject property is extremely rugged and sparsely vegetated and consists of a hillside of large boulders that rise approximately 700 feet from the surrounding area. The western portion of the subject property is relatively flat with a slight slope to the southwest.

The southeast portion of the subject property along the hillside is reportedly used occasionally as an unofficial firing range. In addition to shotgun and bullet casings, AECOM observed miscellaneous trash and debris in this area. Limited trash and debris consisting of plastic bags and paper trash was observed scattered throughout the remaining portion of the subject property, the majority of which appeared to be wind-blown. No staining or visual evidence of hazardous materials release was observed during the site visit.

The subject property is bordered to the north by an unnamed dirt road, beyond which is vacant undeveloped desert land. The subject property is bordered to the east by San Diego and Imperial County line, beyond which are rugged, undeveloped foothills. The subject property is bordered to the south by a dirt road, beyond which is the U.S./Mexico border. The subject property is bordered to the west by an unnamed dirt road, beyond which is vacant undeveloped desert land.

With the exception of the U.S./Mexico border, historical research indicates that the subject property and surrounding sites have never been developed. No historical or offsite sources of concern were identified.

The subject property and surrounding sites were not identified in a site-specific environmental database search report, during AECOM's review of other regulatory sources, or during AECOM's reconnaissance of the surrounding area.

Based on the site visit; review of governmental environmental databases, files, and historical documents; and interviews conducted with selected individuals, no recognized environmental conditions (RECs), historical RECs (HREC), or de minimis conditions were identified. No additional assessment is recommended.



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Figure 1 – Site Location Map

Figure 2 – Site Plan

## APPENDICES

- A Representative Site Photographs
- B Environmental Database Report
- C Qualifications of Environmental Professionals



## **1.0 Introduction**

### **1.1 Purpose**

The purpose of this assessment is to provide the client with information for use in evaluating potential environmental concerns associated with the subject property.

### **1.2 Scope of work**

The Phase I ESA included a site visit, regulatory research, historical review, and environmental database search of approximately 360 acres of vacant undeveloped desert land located in the southeastern corner of San Diego County near the Mexican border, approximately ½ mile south of Old Highway 80 and approximately three miles east of the town of Jacumba. In conducting the Phase I ESA, AECOM assessed the subject property for visible signs of possible contamination, researched public records for the subject property, and conducted interviews with the property owner and the property developer. This project was performed in general accordance with ASTM Standard Practice Designation E 1527-05.

AECOM's standard terms and conditions for this report include the ASTM Phase I ESA scope of work. Conclusions made in this report are based upon the assessment performed and are subject to the study limitations presented in Section 1.3, below.

### **1.3 Study limitations**

This report describes the results of AECOM's due diligence assessment to identify the presence of environmental liabilities materially affecting the subject facility and/or property. In the conduct of this due diligence assessment, AECOM assessed the presence of such problems within the limits of the established scope of work as described in the Inter-Company Sub-Consultancy Agreement between EDAW and AECOM Environment dated March 12, 2009.

In the conduct of this due diligence assessment, AECOM has attempted to independently assess the presence of such problems within the limits of the established scope of work as described in our proposal. As with any due diligence assessment, there is a certain degree of dependence upon oral information provided by facility or site representatives which is not readily verifiable through visual observations or supported by any available written documentation. AECOM shall not be held responsible for conditions or consequences arising from relevant facts that were concealed, withheld, or not fully disclosed by facility or site representatives at the time this assessment was performed.

This report and all field data and notes were gathered and/or prepared by AECOM in accordance with the agreed upon scope of work and generally accepted engineering and scientific practice in effect at the time of AECOM's assessment of the subject property. The statements, conclusions, and opinions contained in this report are only intended to give approximations of the environmental conditions at the subject property.

This report is prepared pursuant to an agreement between the client and AECOM and is for the exclusive use of the client. No other party is entitled to rely on the conclusions, observations, specifications, or data contained herein without first signing an AECOM generated Reliance Letter. A third party's signing of the AECOM Reliance Letter is a condition precedent to any additional use or reliance on this report.



The passage of time, result in changes in technology, economic conditions, site variations, or regulatory provisions which would render the report inaccurate. Reliance on the report after the date of issuance as an accurate representation of current site conditions shall be at the user's sole risk. Should AECOM be required to review the report after six (6) months from its date of submission, AECOM shall be entitled to additional compensation at then existing rates or such other terms as may be agreed upon between AECOM and the client.

#### **1.4 Data failure/data gaps**

This assessment took place between March 12 and April 10, 2009, with the site visit occurring on March 16, 2009. The following data failures/data gaps were encountered during this assessment:

- As specified in the agreed upon scope-of-work, a title search and environmental lien search were not conducted as part of this assessment. However, based upon historical data collected from other sources, this data gap is not expected to impact the results of this assessment.
- The eastern portion of the subject property is extremely rugged and sparsely vegetated and consists of a hillside of large boulders that rise approximately 700 feet from the surrounding area. For this reason it was not possible to fully visually evaluate this portion of the subject property. Based on the extremely rugged nature of this portion of the subject property, this limitation is not expected to impact the results of this assessment.
- Per ASTM E 1527-05, interviews with past owners, operators, and occupants of the subject property, who are likely to have material information regarding the potential for contamination at the subject property, shall be conducted to the extent that they can be identified and that the information likely to be obtained is not duplicative of information already obtained from other sources. During the ESA process, AECOM was not provided with contact information for the former owner of the subject property. This limitation is not expected to change the outcome of the report based on historical information gathered from other sources, which are documented throughout this report.



## 2.0 Site Description

### 2.1 Site location

The subject property is located in the southeastern corner of San Diego County near the Mexican border, approximately ½ mile south of Old Highway 80, and approximately three miles east of the town of Jacumba, San Diego County, California. The approximate location of the subject property is illustrated on Figure 1 - Site Location Map.

### 2.2 Site ownership

The subject property is owned by the Czubernat Family Trust. According to Mr. Ken Czubernat, his family has owned the subject property for approximately 40 years.

### 2.3 Site Visit

Mr. Jim Fickerson from AECOM's Camarillo, California, office visited the subject property on March 16, 2009. Mr. Fickerson was accompanied during the site visit by Mr. Alex Quintero with Semptra Global. The weather at the time of the site visit consisted of clear skies, dry conditions, moderate winds, and temperatures in the mid 70 degrees F. Representative photographs taken during the site visit are provided as Appendix A.

The site visit methodology consisted of walking through portions of the subject property, with particular focus on areas of debris and refuse accumulation. Additionally, the assessor drove around the perimeter and through select interior portions of the subject property. Field binoculars were used during the course of the assessment to ensure that significant site features were visually evaluated. The following sections summarize the results of the site visit.

#### 2.3.1 Site description

The subject property consists of eight contiguous parcels of vacant undeveloped desert land that together total approximately 360 acres. The terrain of the subject property varies considerably. The eastern portion of the subject property is extremely rugged and sparsely vegetated and consists of a hillside of large boulders that rise approximately 700 feet from the surrounding area. The western portion of the subject property is relatively flat with a slight slope to the southwest. This portion of the site is covered primarily with desert scrub vegetation. Two dry desert washes were observed along this portion of the subject property. The first wash runs east to west and was observed along the northern property boundary. The second wash also generally runs east to west and was observed along the southern portion of the subject property.

A dirt road bisects the northeastern portion of the subject property which provides the U.S. Border Patrol with access through the mountains. According to Mr. Czubernat, and as evidenced by shotgun casings that were observed along the hillside, this portion of the subject property is occasionally used as an unofficial firing range. In addition to shotgun and bullet casings, miscellaneous trash and debris was observed in this area. Limited trash and debris consisting of plastic bags and paper trash was observed scattered throughout the remaining portion of the subject property, the majority of which appeared to be wind-blown. No staining or visual evidence of hazardous materials release was observed during the site visit.



During the site visit no visual evidence of groundwater monitoring wells, clarifiers, or dry wells was observed on the subject property. In addition, no discolored soil, water, unusual vegetative conditions, staining or visual evidence of a hazardous materials release was observed. The approximate layout of the subject property is illustrated on Figure 2 – Site Plan.

### **2.3.2 Building description**

No buildings or structures were observed on the subject property during the site visit.

### **2.3.3 Surrounding properties**

The subject property is bordered to the north by an unnamed dirt road, beyond which is vacant undeveloped desert. Old Highway 80 is located approximately ½ mile north of the subject property. The subject property is bordered to the east by the "imaginary" San Diego and Imperial County line. The land to the east of this line consists of rugged, vacant foothills that rise to an elevation of approximately 3,900 feet above mean sea level (msl). The subject property is bordered to the south by a dirt road that is used by the U.S. Border Patrol to monitor the security of the border, beyond which is an approximately 20-foot-high steel fence that extends from east to west that demarcates the U.S./Mexico border (note that due to the rugged nature of the foothills, the eastern portion of the south boundary of the subject property is not fenced). The subject property is bordered to the west by an unnamed dirt road, beyond which is vacant undeveloped desert land.

### **2.3.4 Petroleum hydrocarbons and hazardous materials**

No petroleum hydrocarbons or hazardous materials were observed on the subject property during the site visit.

### **2.3.5 Aboveground storage tanks (ASTs)**

No ASTs were observed on the subject property during the site visit.

### **2.3.6 Underground storage tanks (USTs)**

No visual evidence of fuel-related USTs (e.g., vent pipes, fill ports) was observed during the site visit of the subject property. In addition, no USTs were listed on the State of California Geotracker database or in the site-specific environmental database report that was ordered as a part of this assessment. Mr. Czubernat further confirmed that no USTs are located on the subject property.

### **2.3.7 Solid Waste**

No dumpsters or trash enclosures were observed on the subject property during AECOM's site visit. As noted in Section 2.3.1, miscellaneous wind-blown trash and debris, consisting of plastic bags and paper trash, was observed on the subject property during the site visit. In addition, shotgun shells and casings were observed along the edge of foothills. According to Mr. Quintero and Mr. Czubernat, this portion of the subject property is occasionally used as a shooting range.

### **2.3.8 Stormwater**

No stormwater drains were observed on the subject property during the site visit. Stormwater flow on the subject property is anticipated to be highly variable. Stormwater flow on the eastern and more rugged portion of the subject property is anticipated to flow to the west off the hillsides or infiltrate into the ground. Stormwater flow on the western and flatter portion of the subject property is anticipated to flow towards the west along the several desert washes that run through the subject property or infiltrate into the ground.



**2.3.9 Utilities**

No evidence of utility improvements was observed on the subject property during the site visit.

**2.3.10 Polychlorinated biphenyls (PCBs)**

No pad-mounted, pole-mounted, or other potential PCB-containing equipment was observed on the subject property during the site visit.



## **3.0 Environmental Setting**

### **3.1 Topography**

Based on a review of the United States Geological Survey (USGS) topographic map of the subject property area (Jacumba, California, quadrangle) and the Google Earth website, the elevation of the subject property ranges from a high of approximately 3,900 feet above msl in the southeast corner of the subject property to a low of approximately 3,200 feet above msl in the southwest corner of the subject property. Based on a review of these technical resources, and our site visit, the subject property slopes steeply to the west along the eastern portion of the site and gradually west along the western portion of the subject property.

### **3.2 Soil**

According to a Gen-Tie Line Project Evaluation prepared by Ecology and Environment, Inc., in February 2009, the soil within the subject property consists primarily of acid igneous rock, Rositas Loamy coarse sand, rough broken land and sloping gullied land associations. The acid igneous rock soil series is present in the southeastern portion of the subject property and consists of rough, broken terrain. Large boulders and rock outcrops of granite, granodiorite, tonalite, quartz diorite, gabbro, basalt, or gabbro diorite cover 50 to 90 percent of the total area of this soil type in San Diego County. The soil material is loamy to coarse sand in texture and is very shallow of decomposed granite or basic igneous bedrock.

The Rositas loamy coarse sand, present in the western portion of subject property consists of excessively drained, variable-depth loamy coarse sands derived from Quaternary granitic alluvium.

### **3.3 Groundwater**

It is AECOM understanding that the closest County of San Diego Department of Environmental Health (DEH) permitted well is located approximately two miles north of the subject property. Depth to groundwater in 1981 in this well was reportedly 90 feet below ground surface (feet bgs). No water production wells are located on the subject property and no available site-specific depth to groundwater information was identified during the course of this assessment.



## **4.0 Site and Area History**

Historical information for the subject property and surrounding sites is based on a review of aerial photographs dated 1953, 1980, 1989, 1994, 2002, and 2005; topographic maps dated 1947 and 1959, and a conversation with the subject property owner, Mr. Czubernat. Mr. Czubernat and his family have been associated with the subject property for approximately 40 years.

According to Environmental Data Resources (EDR), no Sanborn® fire insurance maps are available for the subject property. No previously prepared environmental reports were provided for AECOM's review during the course of this assessment or are thought to be available according to Mr. Czubernat.

### **4.1 Subject property**

The subject property does not appear to historically have been developed. According to Mr. Czubernat, there have been no commercial or industrial uses of the subject property, including agricultural use. He was not aware of historical releases or environmental incidents that have occurred in the past. AECOM's review of the historical aerial photographs corroborates Mr. Czubernat's statements regarding the site history. The U.S./Mexican border appears in six photographs reviewed; however, it is believed that it wasn't until the 1990s that the border was fenced. No historical onsite sources of environmental concern were identified.

### **4.2 Adjacent sites**

Historical research indicates that the surrounding sites have largely remained vacant undeveloped desert land. Old Highway 80 (located approximately ½ mile north of the subject property) appears on the 1953 aerial photograph (the earliest available). None of the surrounding sites appear to present a historical environmental concern to the subject property.



## **5.0 Database and Records Review**

### **5.1 User Provided Information**

AECOM contacted Ms. Joan Heredia with Semptra regarding her knowledge of title records, environmental liens, specialized knowledge, and/or real estate value reduction issues associated with the subject property. Ms. Heredia was not aware of environmental cleanup liens or activity use limitations that had been placed on the subject property. Ms. Heredia stated that she did not have specialized knowledge or experience that is material to RECs in connection with the subject property. It was Ms. Heredia's opinion that the purchase price of the subject property reflected its fair market value.

Ms. Heredia stated that she did not have any knowledge regarding the history of the subject property. She was unaware of the specific chemicals, spills, chemical releases, or environmental cleanups that may have occurred on the subject property. It was her opinion that there were no obvious indicators pointing to the presence or likely presence of contamination at the subject property.

### **5.2 Title Records/Environmental Liens**

An environmental lien search was not performed as part of this assessment. Based on AECOM's land use and historical research, it is our opinion that an environmental lien is unlikely to have been placed on the subject property.

### **5.3 Database information**

In accordance with the scope of work and ASTM Standard E-1527-05, a search of various governmental databases was conducted by Environmental Data Resources, Inc. (EDR). The environmental database search report (EDR report) was reviewed to determine the potential for environmental impacts to the subject property from on-site and/or off-site sources of concern. The database abbreviations are provided in the EDR report. Sites that could not be mapped by EDR were researched by AECOM during the site reconnaissance. A summary of the results of the EDR database search are presented below. A list of the databases searched and the search distances are provided in the EDR report. A copy of the EDR report is attached as Appendix B.

Based on AECOM's research, the subject property is not located on or within a one-mile radius of tribal lands.

#### **5.3.1 Subject property**

The subject property was not identified in the environmental database search report.

#### **5.3.2 Surrounding sites**

None of the surrounding sites were identified in the environmental database search report. In addition, a review of a list of sites that could not be mapped contained with the environmental database report indicates that none of these sites are located within one mile of the subject property. Based on this information and the results of the area reconnaissance of the nearby properties, it is AECOM's opinion that none of the surrounding sites present an REC to the subject property.



## **5.4 Agency review**

### **5.4.1 Regional Water Quality Control Board**

AECOM reviewed the State of California Regional Water Control Board (RWQCB) Geotracker website which contains information on leaking underground storage tanks (LUST) and spills and releases of hazardous materials that have the potential to impact the waters of the State of California. The subject property was not identified on the Geotracker database.

### **5.4.2 County of San Diego Department of Environmental Health**

AECOM submitted a Freedom of Information Act (FOIA) request to DEH to determine if they have files for the subject property related to a hazardous materials release or incident that has occurred at the subject property. As of the date of this report, a response to this FOIA request has not been received. It is AECOM's opinion, that the DEH's response (if any) to this request is unlikely to alter the conclusions or recommendations of this report.



## 6.0 Conclusions and Recommendations

AECOM performed a Phase I ESA in conformance with the scope and limitations of ASTM Practice E 1527-05 of the subject property. Any exception to, or deletions from, this practice are described in Section 1.0 of this report. No RECs, HRECs, or de minimis conditions were identified during the course of this assessment and no additional assessment is recommended.



## 7.0 Quality Control/Quality Assurance

### 7.1 Site visit, research, and report preparation:

The site visit, research, and report preparation were conducted by Mr. Jim Fickerson, Senior Project Manager, in AECOM's Camarillo, California office. Mr. Fickerson completed this report on April 10, 2009. Mr. Fickerson has over 15 years of environmental due diligence experience. His signature is below and his resume is included in Appendix C.

Signature:

  
Jim Fickerson, Senior Project Manager

### 7.2 Quality control review

A first level review of this report was conducted by Ms. Kirsten Bradford, Project Specialist, in AECOM's Camarillo, California office. Ms. Bradford completed her review of this report on April 10, 2009. Ms. Bradford has over five years of environmental due diligence experience. Her signature is below and her resume is included in Appendix C.

Signature:

  
Kirsten Bradford, Project Specialist

A second level review of this report was conducted by Ms. Brenda Miller, Senior Project Manager, in AECOM's Camarillo, California, office. Ms. Miller completed her review of this report on April 10, 2009. Ms. Miller has over 15 years of environmental due diligence experience. Her signature is below and her resume is included in Appendix C.

Signature:

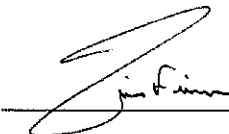
  
Brenda Miller, Senior Project Manager

### 7.3 Environmental professional statement

Mr. Fickerson was the Environmental Professional (EP) for this project. His EP statement is below:

*I declare that, to the best of our professional knowledge and belief, I meet the definition of an EP as defined in §312.10 of 40 CFR and that I have the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the subject property. I have developed and performed the all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312.*

Signature:



Date: April 10, 2009



## 8.0 References

### 8.1 Persons Interviewed/Agencies Contacted

County of San Diego Department of Environmental Health, FIOA request submitted April 10, 2009. County address: 1255 Imperial Avenue, 3rd Floor, San Diego, California 92101, phone number (619) 338-2222.

Czubernat, Ken. Property owner, phone number (619) 247-7113. Personal communication with Jim Fickerson, AECOM March 25, 2009.

Heredia, Joan, Permitting Manager, Sempra Global, 101 Ash Street, HQ 8B, San Diego, California 9210-3017 (619) 696-1824. Personal communication with Jim Fickerson, AECOM April 13, 2009.

State Water Resources Control Board, GeoTracker database online search of environmental data for regulated facilities at <http://www.geotracker.swrcb.ca.gov/>.

Quintero, Alex, Engineer, Global, 101 Ash Street, HQ 8B, San Diego, California 92101-3017 (619) 696-2995, [aguinero@sempraglobal.com](mailto:aguinero@sempraglobal.com). Personal communication with Jim Fickerson, AECOM March 16, 2009.

### 8.2 Documents Reviewed

Assessor parcel information. County of San Diego Assessor Office. Reviewed online at <http://sanweb.sangis.org>.

Aerial photograph dated 2009 of the subject property. Photograph reviewed online at Google Earth website, <http://www.google.com>.

EDR Aerial Photos Decade Package, prepared for Energiz Sierra Juarez Site, South of Old Highway 80, Near Jacumba, CA 91934, dated March 19, 2009. Inquiry number 2446998.5. Aerial photographs dated 1953, 1980, 1989, 1994, 2002, and 2005. Report prepared by Environmental Data Resources, 440 Wheelers Farms Road, Milford, Connecticut 06460, (800) 353-0050.

EDR Historical Topographic Map Report, prepared for Energiz Sierra Juarez Site, South of Old Highway 80, Near Jacumba, CA 91934, dated March 19, 2009. Inquiry number 2446998.4. Topographic maps dated 1947 and 1959 (Jacumba Quad). Report prepared by Environmental Data Resources, 440 Wheelers Farms Road, Milford, Connecticut 06460, (800) 353-0050.

EDR Radius Map with GeoCheck®, Energiz Sierra Juarez Site, South of Old Highway 80, Near Jacumba, CA 91934, dated March 19, 2009. Inquiry Number 02446998.2r. Report prepared by Environmental Data Resources, 440 Wheelers Farms Road, Milford, Connecticut 06460, (800) 352-0050.

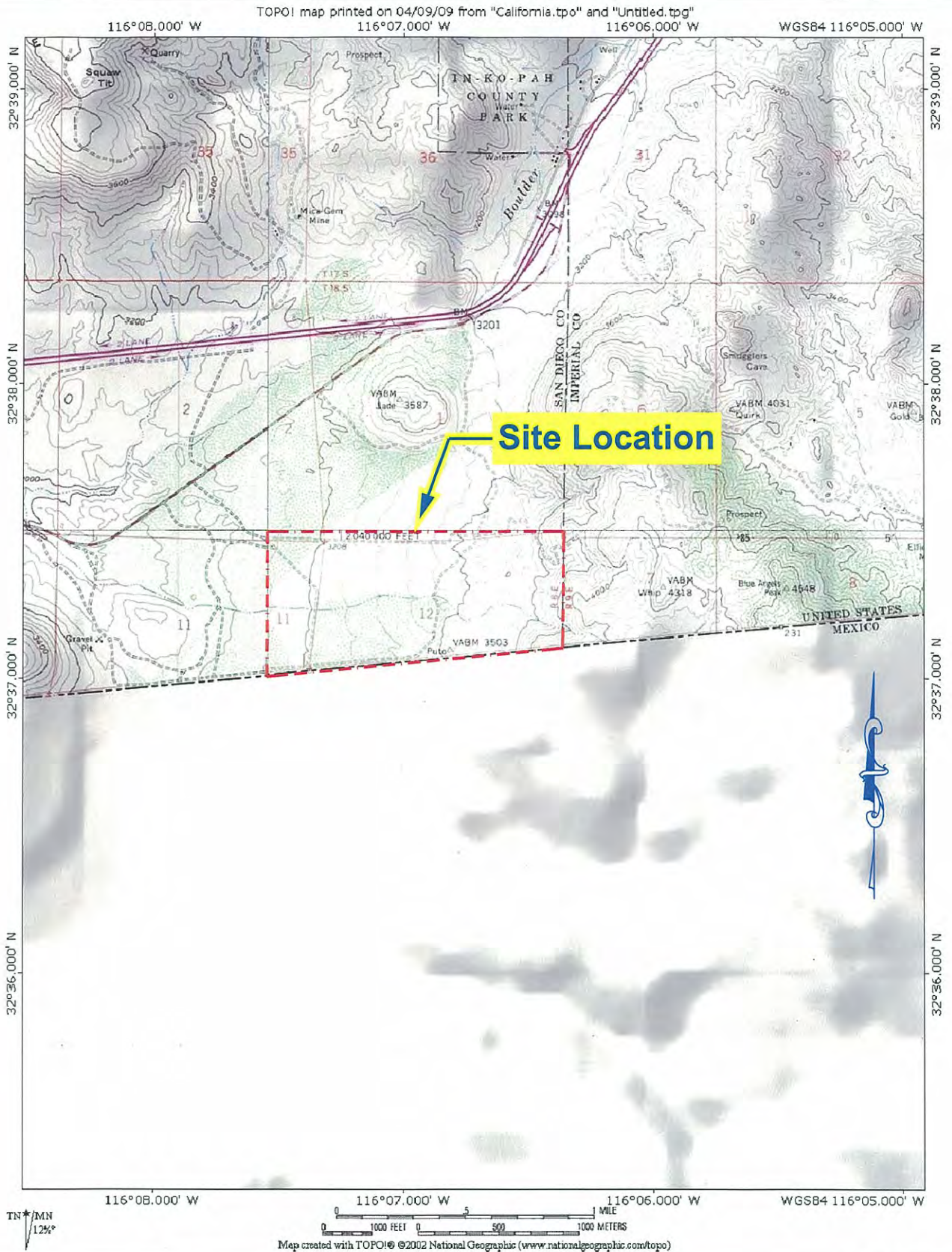
Energia Sierra Juarez U.S. Gen-Tie Line Project, dated February 2009. Prepared by Ecology and Environment, Inc., 401 West A. Street, Suite 775, San Diego, California 92101.

Sanborn® Map Report, "No Coverage Energiz Sierra Juarez Site, South of Old Highway 80, Near Jacumba, CA 91934, dated March 19, 2009. Inquiry Number 2446998.3. Report prepared by Environmental Data Resources, 440 Wheelers Farms Road, Milford, Connecticut 06460, (800) 352-0050.



## FIGURES





**AECOM**

## SITE LOCATION MAP

Energia Sierra Juárez  
360 Acres of Vacant Land Near Old Highway 80  
Unincorporated San Diego County, California

FIGURE NUMBER:

**1**

AECOM ENVIRONMENT  
1220 AVENIDA ACASO  
CAMARILLO, CALIFORNIA 93012  
PHONE: (805) 388-3775  
FAX: (805) 388-3577  
WEB: HTTP://WWW.AECOM.COM

DRAWN BY:

KM

DATE:

04/10/09

PROJECT NUMBER:

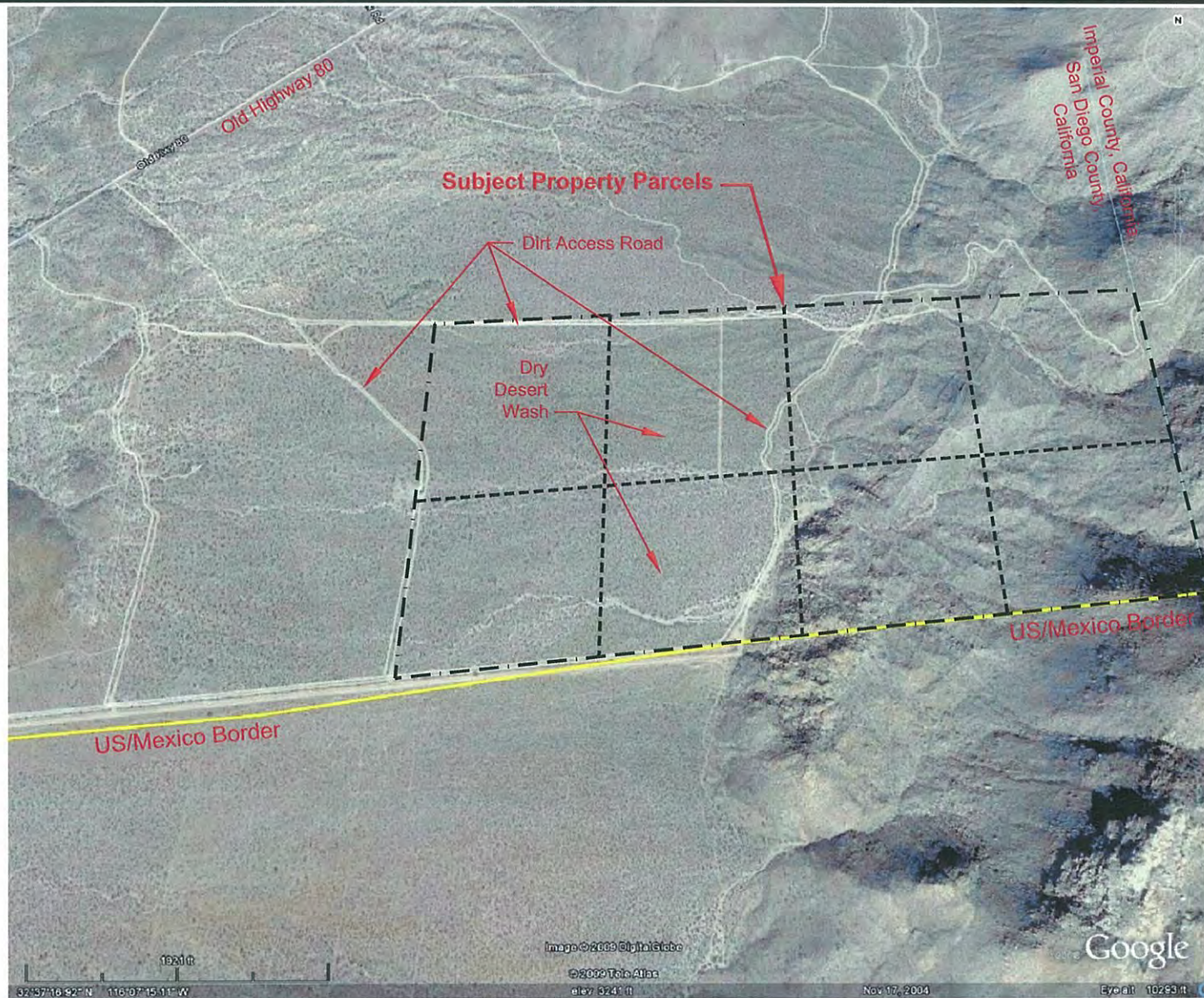
02450-063-100

CHECKED BY:

JF

FILENAME: 0245006310A





**AECOM**

AECOM ENVIRONMENT  
1220 AVENIDA ACASO  
CAMARILLO, CALIFORNIA 93012  
PHONE: (805) 388-3775  
FAX: (805) 388-3577  
WEB: [HTTP://WWW.AECOM.COM](http://www.aecom.com)

## SITE PLAN

Energia Sierra Juárez  
360 Acres of Vacant Land Near Old Highway 80  
Unincorporated San Diego County, California

FIGURE NUMBER:

**2**

DRAWN BY:	DATE:	PROJECT NUMBER:	CHECKED BY:
KM	04/10/09	02450-063-100	JF


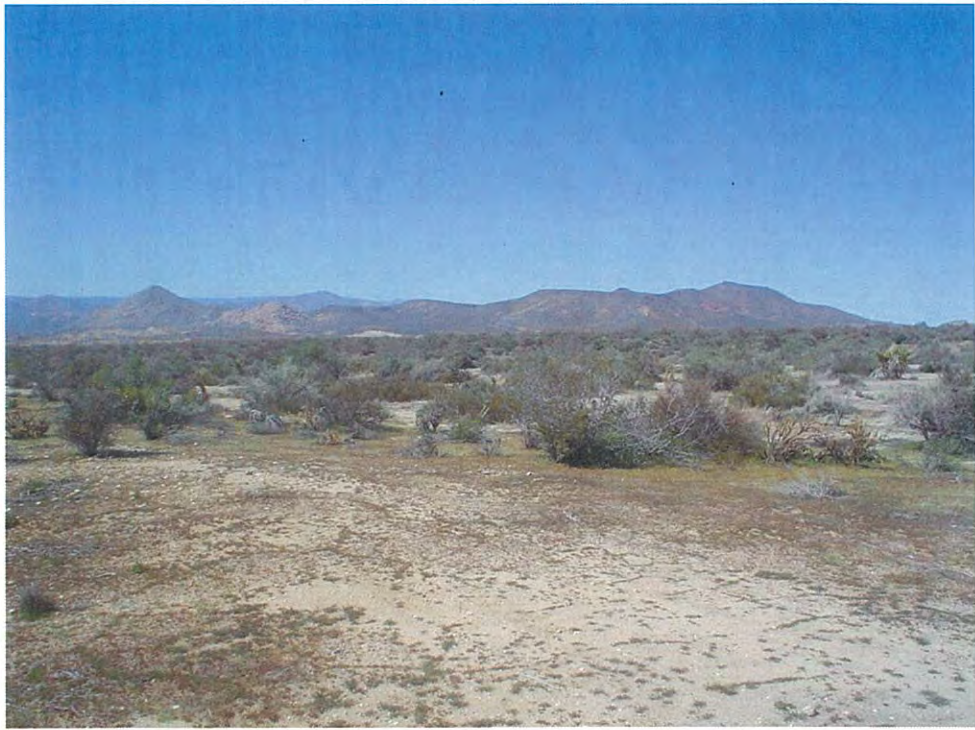


## **APPENDIX A**

### **Representative Site Photographs**



## PHOTOGRAPHIC LOG

<b>Client Name:</b> Semptra Global		<b>Site Location:</b> 360 Acres of Vacant Land, Near Highway 80, Unincorporated San Diego County, California	<b>Project No.</b> 02450-063-100
<b>Photo No.</b> <b>1</b>	<b>Date:</b> 03/16/09		
<b>Direction Photo Taken:</b>  Northwest			
<b>Description:</b>  View of the northwest portion of the subject property.			
<b>Photo No.</b> <b>2</b>	<b>Date:</b> 03/10/09		
<b>Direction Photo Taken:</b>  West			
<b>Description:</b>  View of the western portion of the subject property.			



## PHOTOGRAPHIC LOG

**Client Name:**  
Semptra Global

**Site Location:**  
360 Acres of Vacant Land, Near Highway 80,  
Unincorporated San Diego County, California

**Project No.**  
02450-063-100

**Photo No.**  
**3**

**Date:**  
03/16/09

**Direction Photo  
Taken:**

East

**Description:**

View of the rugged hills  
that make up the majority  
of the eastern portion of  
the subject property.



**Photo No.**  
**4**

**Date:**  
03/16/09

**Direction Photo  
Taken:**

West

**Description:**

View of the western half of  
the subject property. The  
U.S./Mexico fence/border  
can be seen along the left  
hand side of the  
photograph.





## PHOTOGRAPHIC LOG

**Client Name:**  
Semptra Global

**Site Location:**  
360 Acres of Vacant Land, Near Highway 80,  
Unincorporated San Diego County, California

**Project No.**  
02450-063-100

**Photo No.**  
**5**

**Date:**  
03/16/09

**Direction Photo Taken:**

East

**Description:**

View of trash and debris that was observed to the west of the subject property.



**Photo No.**  
**6**

**Date:**  
03/16/09

**Direction Photo Taken:**

North



**Description:**

View of a dirt road that borders the western property boundary.





## PHOTOGRAPHIC LOG

<b>Client Name:</b> Sempra Global		<b>Site Location:</b> 360 Acres of Vacant Land, Near Highway 80, Unincorporated San Diego County, California	<b>Project No.</b> 02450-063-100
<b>Photo No.</b> <b>7</b>	<b>Date:</b> 03/16/09		
<b>Direction Photo Taken:</b>  Southeast			
<b>Description:</b>  View of the rugged hills that comprise the eastern portion of the subject property.			
<b>Photo No.</b> <b>8</b>	<b>Date:</b> 03/16/09		
<b>Direction Photo Taken:</b>  Northeast			
<b>Description:</b>  View of trash, debris and bullet fragments that were observed along the eastern portion of the subject property near the hillside.			



## PHOTOGRAPHIC LOG

**Client Name:**  
Semptra Global

**Site Location:**  
360 Acres of Vacant Land, Near Highway 80,  
Unincorporated San Diego County, California

**Project No.**  
02450-063-100

**Photo No.**  
**9**

**Date:**  
03/16/09

**Direction Photo  
Taken:**

South

**Description:**

View of the subject  
property looking towards  
the U.S./Mexico border.



**Photo No.**  
**10**

**Date:**  
03/16/09

**Direction Photo  
Taken:**

East

**Description:**

View of the northern most  
dry desert wash that is  
located on the subject  
property.





Appendix B.14 FAA Determinations of No Hazard to Air Navigation (November 10,  
2009)









Federal Aviation Administration  
Air Traffic Airspace Branch, ASW-520  
2601 Meacham Blvd.  
Fort Worth, TX 76137-0520

Aeronautical Study No.  
2009-AWP-4974-OE

Issued Date: 11/10/2009

Joan Heredia  
Sempra Global  
101 Ash St HQ8B  
San Diego, CA 92101

**\*\* DETERMINATION OF NO HAZARD TO AIR NAVIGATION \*\***

The Federal Aviation Administration has conducted an aeronautical study under the provisions of 49 U.S.C., Section 44718 and if applicable Title 14 of the Code of Federal Regulations, part 77, concerning:

Structure:	Transmission Line 230Ar1
Location:	jacumba, CA
Latitude:	32-37-05.24N NAD 83
Longitude:	116-06-57.68W
Heights:	170 feet above ground level (AGL) 3470 feet above mean sea level (AMSL)

This aeronautical study revealed that the structure does not exceed obstruction standards and would not be a hazard to air navigation provided the following condition(s), if any, is(are) met:

Based on this evaluation, marking and lighting are not necessary for aviation safety. However, if marking and/or lighting are accomplished on a voluntary basis, we recommend it be installed and maintained in accordance with FAA Advisory circular 70/7460-1 K Change 2.

Any height exceeding 170 feet above ground level (3470 feet above mean sea level), will result in a substantial adverse effect and would warrant a Determination of Hazard to Air Navigation.

This determination expires on 05/10/2011 unless:

- (a) extended, revised or terminated by the issuing office.
- (b) the construction is subject to the licensing authority of the Federal Communications Commission (FCC) and an application for a construction permit has been filed, as required by the FCC, within 6 months of the date of this determination. In such case, the determination expires on the date prescribed by the FCC for completion of construction, or the date the FCC denies the application.

**NOTE: REQUEST FOR EXTENSION OF THE EFFECTIVE PERIOD OF THIS DETERMINATION MUST BE POSTMARKED OR DELIVERED TO THIS OFFICE AT LEAST 15 DAYS PRIOR TO THE EXPIRATION DATE.**

This determination is based, in part, on the foregoing description which includes specific coordinates, heights, frequency(ies) and power. Any changes in coordinates, heights, and frequencies or use of greater power will



void this determination. Any future construction or alteration , including increase to heights, power, or the addition of other transmitters, requires separate notice to the FAA.

This determination does include temporary construction equipment such as cranes, derricks, etc., which may be used during actual construction of the structure. However, this equipment shall not exceed the overall heights as indicated above. Equipment which has a height greater than the studied structure requires separate notice to the FAA.

This determination concerns the effect of this structure on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

If we can be of further assistance, please contact our office at (310) 725-6557. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2009-AWP-4974-OE.

**Signature Control No: 659748-120096361**

( DNE )

Karen McDonald  
Specialist

Attachment(s)  
Case Description  
Map(s)

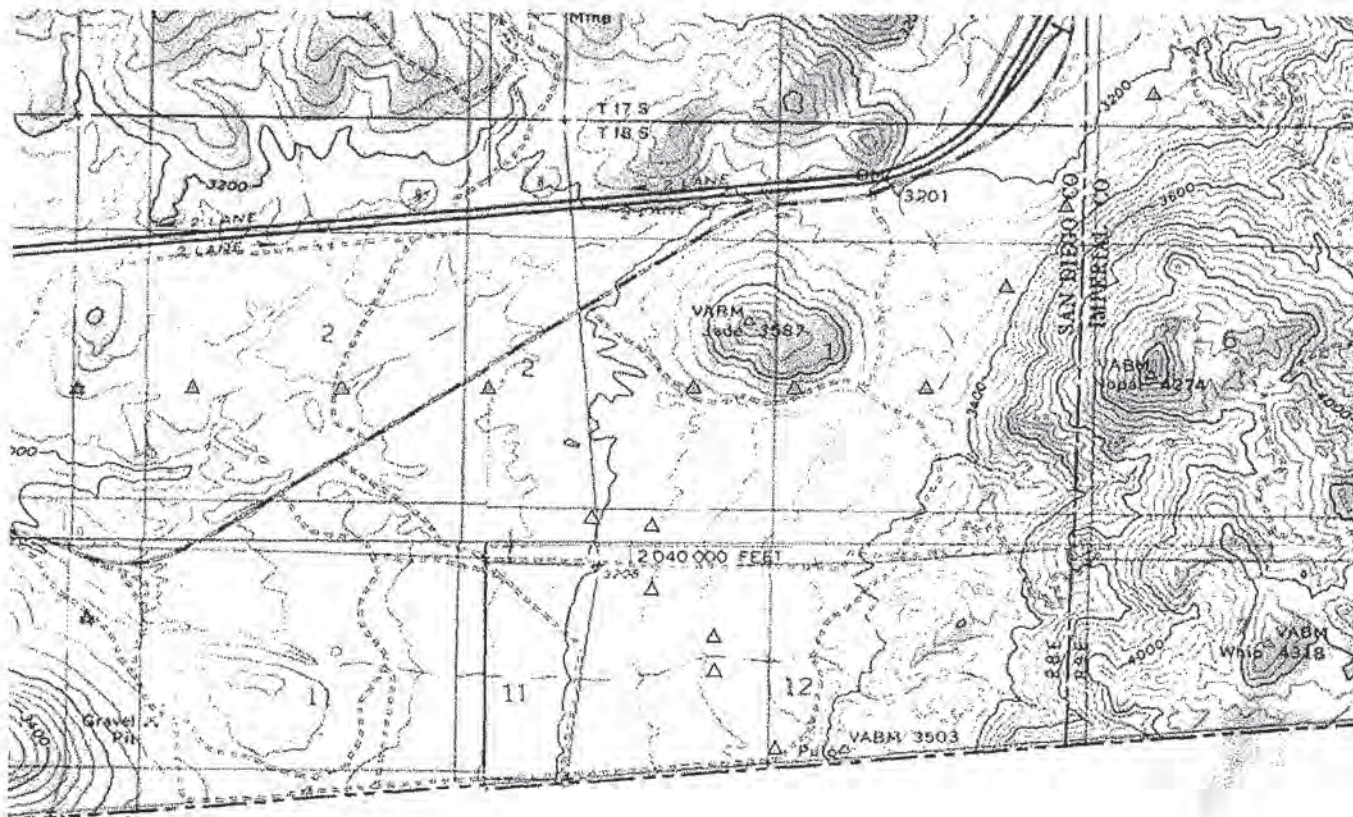


**Case Description for ASN 2009-AWP-4974-OE**

Installation of a 230kV transmission line



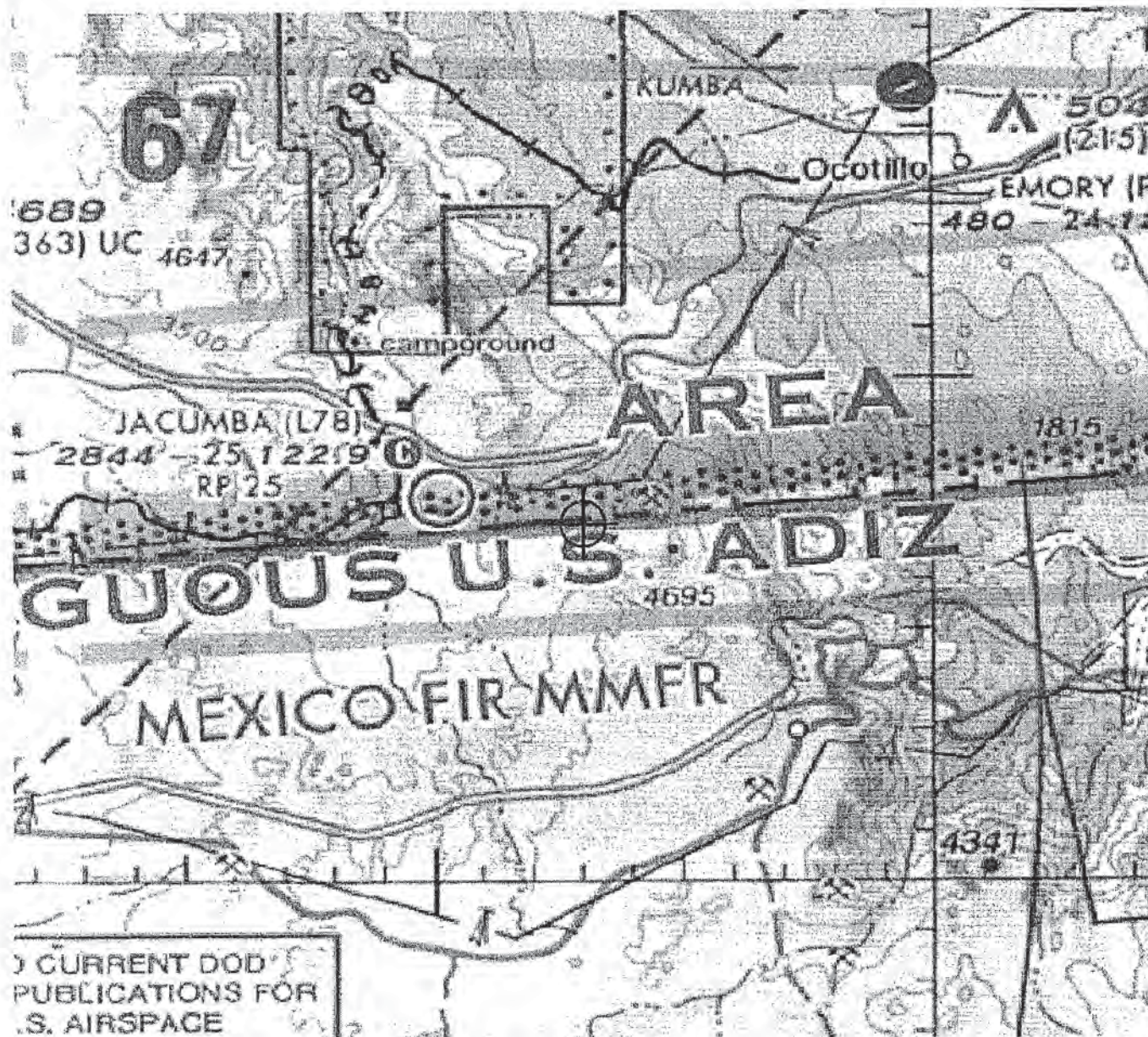
Verified Map for ASN 2009-AWP-4974-OE



Mexico

Mexico









Federal Aviation Administration  
Air Traffic Airspace Branch, ASW-520  
2601 Meacham Blvd.  
Fort Worth, TX 76137-0520

Aeronautical Study No.  
2009-AWP-4976-OE

Issued Date: 11/10/2009

Joan Heredia  
Semptra Global  
101 Ash St HQ8B  
San Diego, CA 92101

**\*\* DETERMINATION OF NO HAZARD TO AIR NAVIGATION \*\***

The Federal Aviation Administration has conducted an aeronautical study under the provisions of 49 U.S.C., Section 44718 and if applicable Title 14 of the Code of Federal Regulations, part 77, concerning:

Structure:	Transmission Line 230Br1
Location:	jacumba, CA
Latitude:	32-37-14.59N NAD 83
Longitude:	116-07-05.20W
Heights:	170 feet above ground level (AGL) 3458 feet above mean sea level (AMSL)

This aeronautical study revealed that the structure does not exceed obstruction standards and would not be a hazard to air navigation provided the following condition(s), if any, is(are) met:

Based on this evaluation, marking and lighting are not necessary for aviation safety. However, if marking and/or lighting are accomplished on a voluntary basis, we recommend it be installed and maintained in accordance with FAA Advisory circular 70/7460-1 K Change 2.

Any height exceeding 170 feet above ground level (3458 feet above mean sea level), will result in a substantial adverse effect and would warrant a Determination of Hazard to Air Navigation.

This determination expires on 05/10/2011 unless:

- (a) extended, revised or terminated by the issuing office.
- (b) the construction is subject to the licensing authority of the Federal Communications Commission (FCC) and an application for a construction permit has been filed, as required by the FCC, within 6 months of the date of this determination. In such case, the determination expires on the date prescribed by the FCC for completion of construction, or the date the FCC denies the application.

NOTE: REQUEST FOR EXTENSION OF THE EFFECTIVE PERIOD OF THIS DETERMINATION MUST BE POSTMARKED OR DELIVERED TO THIS OFFICE AT LEAST 15 DAYS PRIOR TO THE EXPIRATION DATE.

This determination is based, in part, on the foregoing description which includes specific coordinates, heights, frequency(ies) and power. Any changes in coordinates, heights, and frequencies or use of greater power will



void this determination. Any future construction or alteration , including increase to heights, power, or the addition of other transmitters, requires separate notice to the FAA.

This determination does include temporary construction equipment such as cranes, derricks, etc., which may be used during actual construction of the structure. However, this equipment shall not exceed the overall heights as indicated above. Equipment which has a height greater than the studied structure requires separate notice to the FAA.

This determination concerns the effect of this structure on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

If we can be of further assistance, please contact our office at (310) 725-6557. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2009-AWP-4976-OE.

**Signature Control No: 659750-120096359**

( DNE )

Karen McDonald  
Specialist

Attachment(s)  
Case Description  
Map(s)

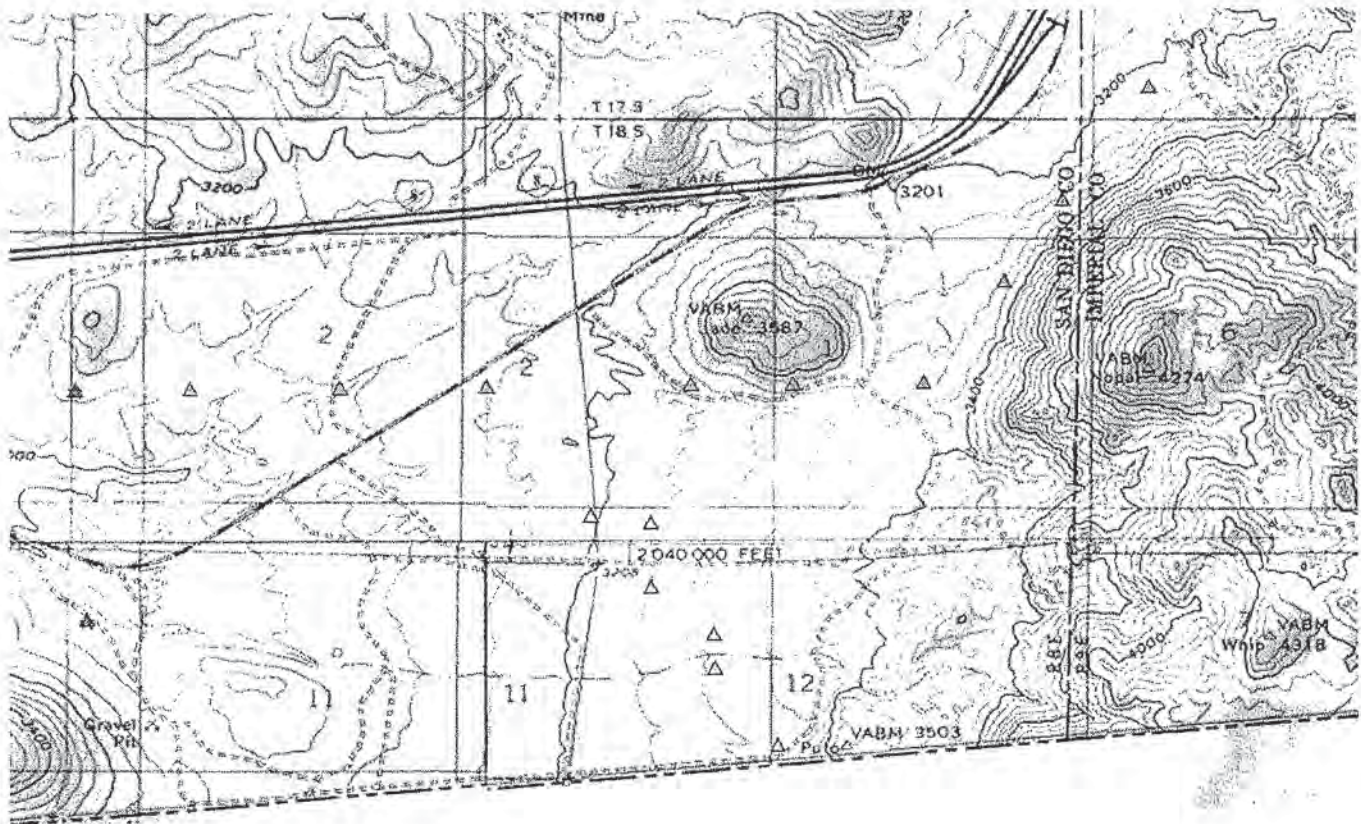


## Case Description for ASN 2009-AWP-4976-OE

Installatin of a 230 kV transmission line



Verified Map for ASN 2009-AWP-4976-OE



Mexico

Mexico









Federal Aviation Administration  
Air Traffic Airspace Branch; ASW-520  
2601 Meacham Blvd.  
Fort Worth, TX 76137-0520

Aeronautical Study No.  
2009-AWP-4977-OE

Issued Date: 11/10/2009

Joan Heredia  
Sempra Global  
101 Ash St HQ8B  
San Diego, CA 92101

**\*\* DETERMINATION OF NO HAZARD TO AIR NAVIGATION \*\***

The Federal Aviation Administration has conducted an aeronautical study under the provisions of 49 U.S.C., Section 44718 and if applicable Title 14 of the Code of Federal Regulations, part 77, concerning:

Structure:	Transmission Line 230Cr1
Location:	jacumba, CA
Latitude:	32-37-24.26N NAD 83
Longitude:	116-07-12.96W
Heights:	170 feet above ground level (AGL) 3415 feet above mean sea level (AMSL)

This aeronautical study revealed that the structure does not exceed obstruction standards and would not be a hazard to air navigation provided the following condition(s), if any, is(are) met:

Based on this evaluation, marking and lighting are not necessary for aviation safety. However, if marking and/or lighting are accomplished on a voluntary basis, we recommend it be installed and maintained in accordance with FAA Advisory circular 70/7460-1 K Change 2.

Any height exceeding 170 feet above ground level (3415 feet above mean sea level), will result in a substantial adverse effect and would warrant a Determination of Hazard to Air Navigation.

This determination expires on 05/10/2011 unless:

- (a) extended, revised or terminated by the issuing office.
- (b) the construction is subject to the licensing authority of the Federal Communications Commission (FCC) and an application for a construction permit has been filed, as required by the FCC, within 6 months of the date of this determination. In such case, the determination expires on the date prescribed by the FCC for completion of construction, or the date the FCC denies the application.

**NOTE: REQUEST FOR EXTENSION OF THE EFFECTIVE PERIOD OF THIS DETERMINATION MUST BE POSTMARKED OR DELIVERED TO THIS OFFICE AT LEAST 15 DAYS PRIOR TO THE EXPIRATION DATE.**

This determination is based, in part, on the foregoing description which includes specific coordinates, heights, frequency(ies) and power. Any changes in coordinates, heights, and frequencies or use of greater power will



void this determination. Any future construction or alteration , including increase to heights, power, or the addition of other transmitters, requires separate notice to the FAA.

This determination does include temporary construction equipment such as cranes, derricks, etc., which may be used during actual construction of the structure. However, this equipment shall not exceed the overall heights as indicated above. Equipment which has a height greater than the studied structure requires separate notice to the FAA.

This determination concerns the effect of this structure on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

If we can be of further assistance, please contact our office at (310) 725-6557. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2009-AWP-4977-OE.

**Signature Control No: 659751-120096360**

( DNE )

Karen McDonald  
Specialist

Attachment(s)  
Case Description  
Map(s)

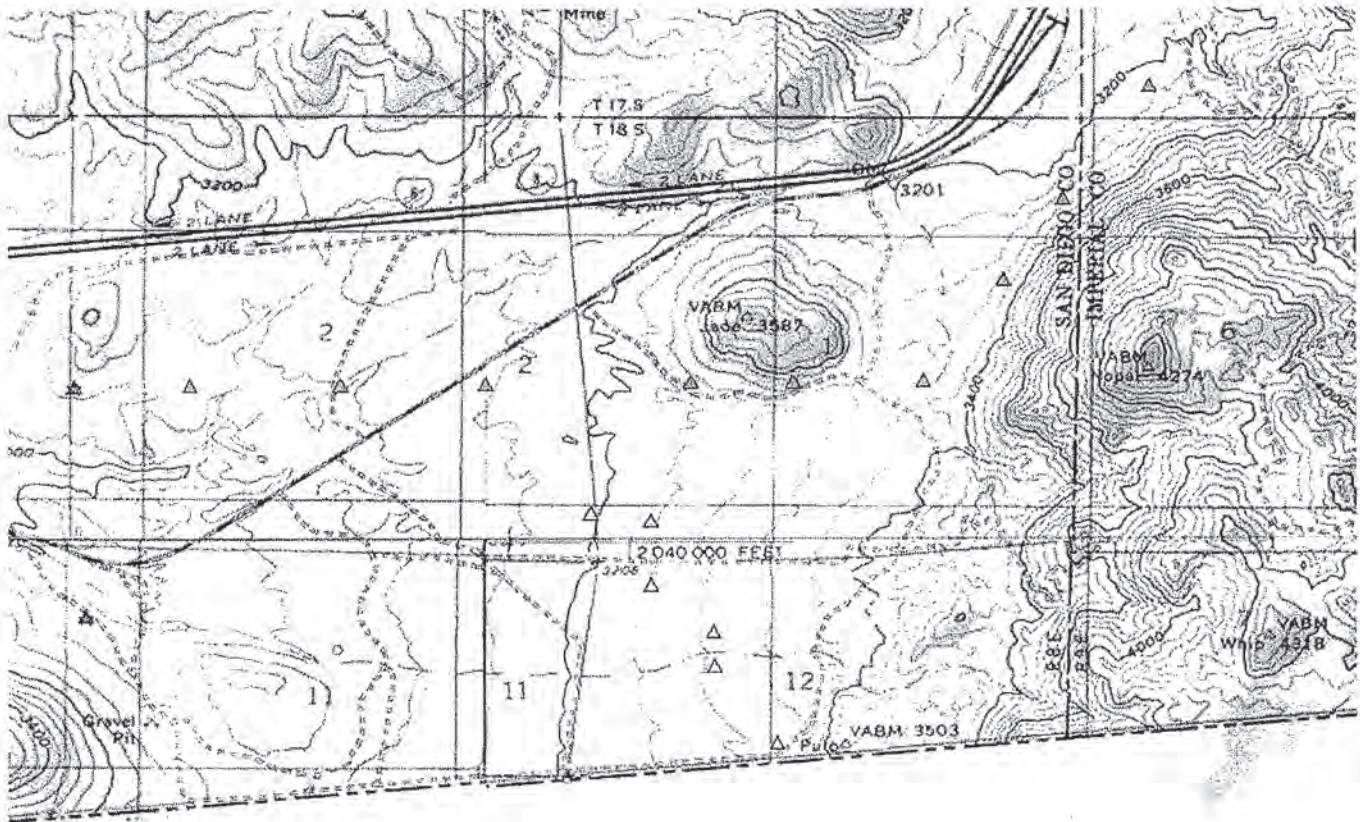


## **Case Description for ASN 2009-AWP-4977-OE**

Installatin of a 2300 kV transmission line



Verified Map for ASN 2009-AWP-4977-OE



Mexico

Mexico



Sectional Map for ASN 2009-AWP-4977-OE







Federal Aviation Administration  
Air Traffic Airspace Branch, ASW-520  
2601 Meacham Blvd.  
Fort Worth, TX 76137-0520

Aeronautical Study No.  
2009-AWP-4979-OE

Issued Date: 11/10/2009

Joan Heredia  
Sempra Global  
101 Ash St HQ8B  
San Diego, CA 92101

**\*\* DETERMINATION OF NO HAZARD TO AIR NAVIGATION \*\***

The Federal Aviation Administration has conducted an aeronautical study under the provisions of 49 U.S.C., Section 44718 and if applicable Title 14 of the Code of Federal Regulations, part 77, concerning:

Structure:	Transmission Line 230Dr1
Location:	Jacumba, CA
Latitude:	32-37-32.97N NAD 83
Longitude:	116-07-20.31W
Heights:	170 feet above ground level (AGL) 3370 feet above mean sea level (AMSL)

This aeronautical study revealed that the structure does not exceed obstruction standards and would not be a hazard to air navigation provided the following condition(s), if any, is(are) met:

Based on this evaluation, marking and lighting are not necessary for aviation safety. However, if marking and/or lighting are accomplished on a voluntary basis, we recommend it be installed and maintained in accordance with FAA Advisory circular 70/7460-1 K Change 2.

Any height exceeding 170 feet above ground level (3370 feet above mean sea level), will result in a substantial adverse effect and would warrant a Determination of Hazard to Air Navigation.

This determination expires on 05/10/2011 unless:

- (a) extended, revised or terminated by the issuing office.
- (b) the construction is subject to the licensing authority of the Federal Communications Commission (FCC) and an application for a construction permit has been filed, as required by the FCC, within 6 months of the date of this determination. In such case, the determination expires on the date prescribed by the FCC for completion of construction, or the date the FCC denies the application.

NOTE: REQUEST FOR EXTENSION OF THE EFFECTIVE PERIOD OF THIS DETERMINATION MUST BE POSTMARKED OR DELIVERED TO THIS OFFICE AT LEAST 15 DAYS PRIOR TO THE EXPIRATION DATE.

This determination is based, in part, on the foregoing description which includes specific coordinates, heights, frequency(ies) and power. Any changes in coordinates, heights, and frequencies or use of greater power will



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This determination does include temporary construction equipment such as cranes, derricks, etc., which may be used during actual construction of the structure. However, this equipment shall not exceed the overall heights as indicated above. Equipment which has a height greater than the studied structure requires separate notice to the FAA.

This determination concerns the effect of this structure on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

If we can be of further assistance, please contact our office at (310) 725-6557. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2009-AWP-4979-OE.

**Signature Control No: 659756-120096362**

( DNE )

Karen McDonald  
Specialist

Attachment(s)  
Case Description  
Map(s)

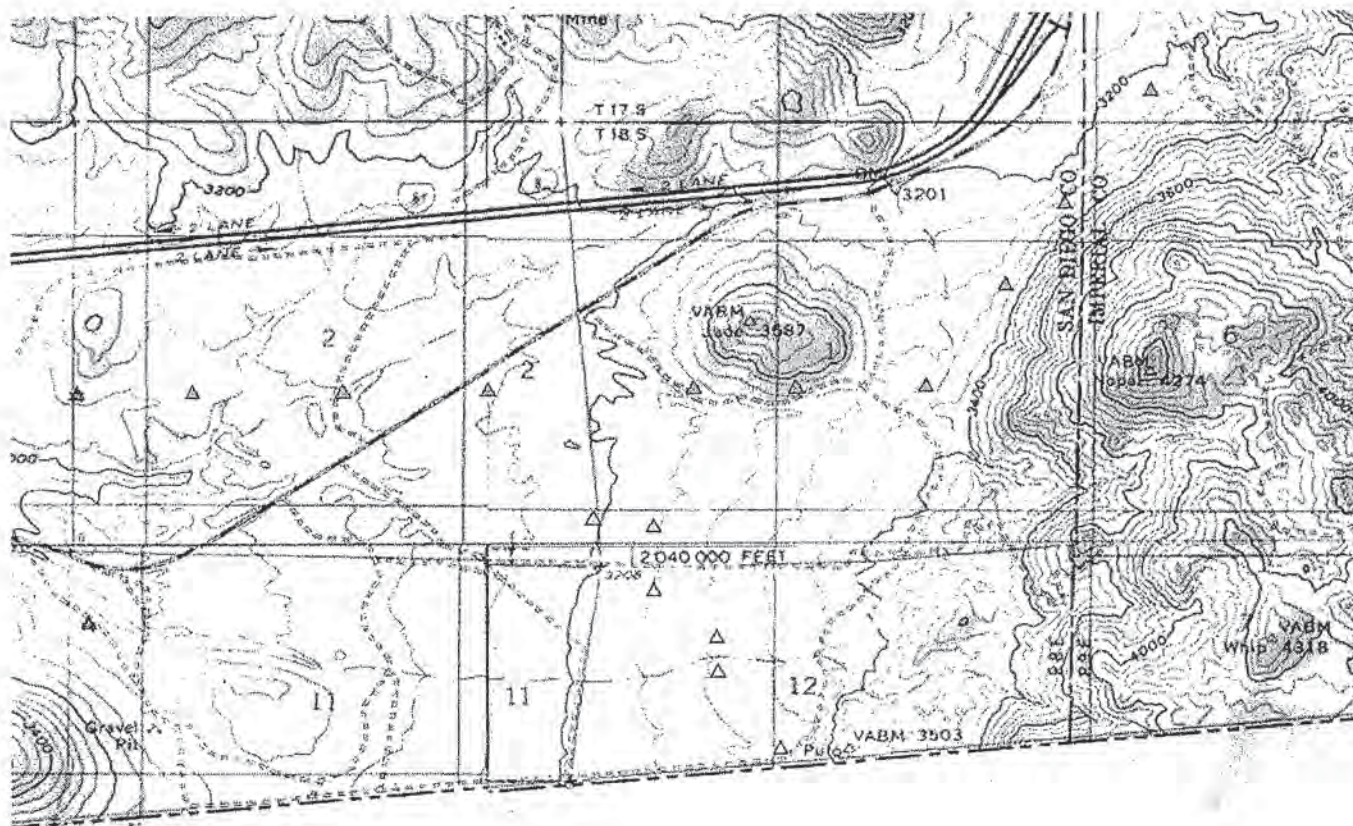


**Case Description for ASN 2009-AWP-4979-OE**

Installatin of a 230kV transmission line



Verified Map for ASN 2009-AWP-4979-OE

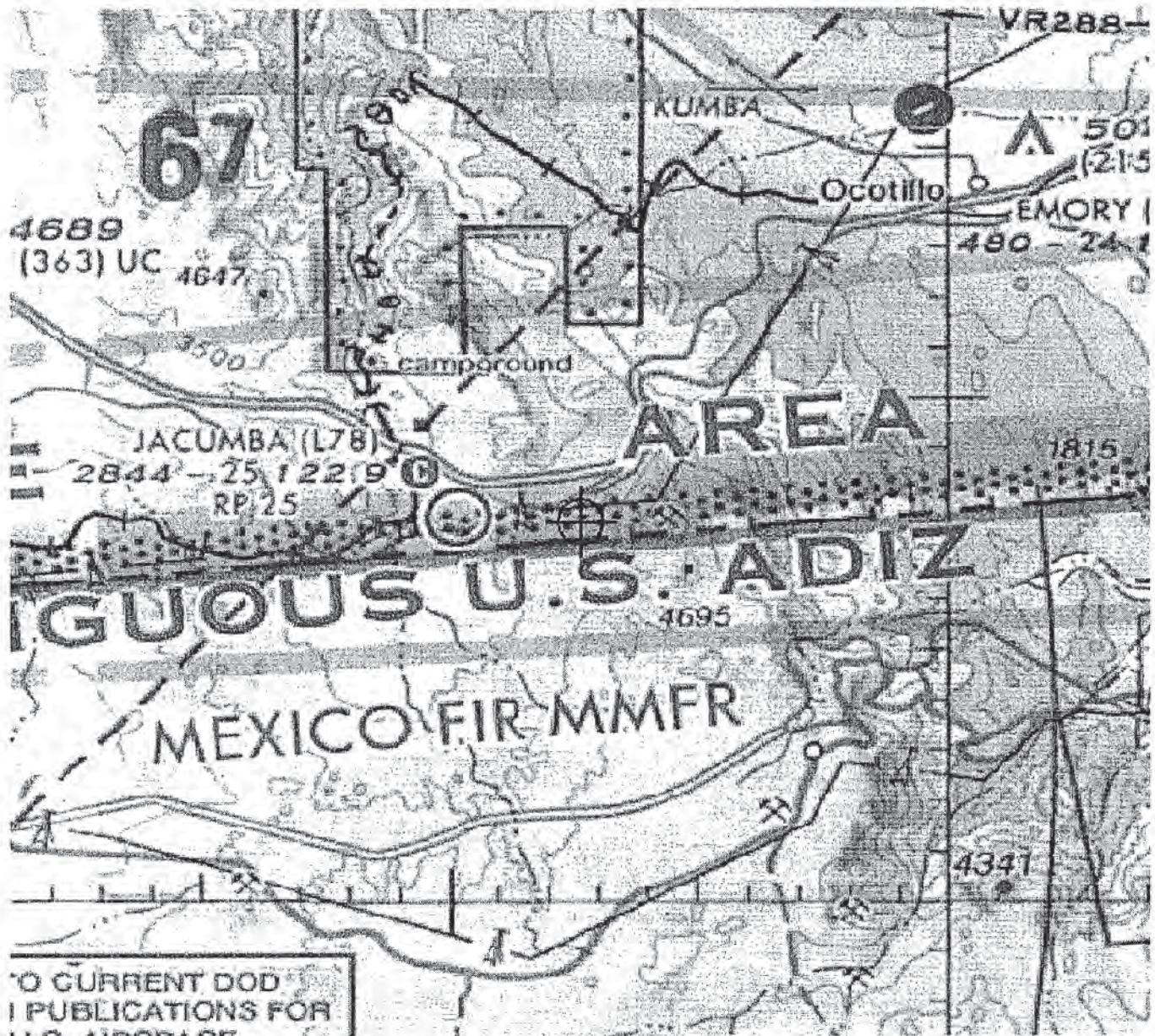


Mexico

Mexico



Sectional Map for ASN 2009-AWP-4979-OE







Federal Aviation Administration  
Air Traffic Airspace Branch, ASW-520  
2601 Meacham Blvd.  
Fort Worth, TX 76137-0520

Aeronautical Study No.  
2009-AWP-4978-OE

Issued Date: 11/10/2009

Joan Heredia  
Semptra Global  
101 Ash St HQ8B  
San Diego, CA 92101

**\*\* DETERMINATION OF NO HAZARD TO AIR NAVIGATION \*\***

The Federal Aviation Administration has conducted an aeronautical study under the provisions of 49 U.S.C., Section 44718 and if applicable Title 14 of the Code of Federal Regulations, part 77, concerning:

Structure:	Transmission Line 500Br1
Location:	jacumba, CA
Latitude:	32-37-18.64N NAD 83
Longitude:	116-07-05.36W
Heights:	170 feet above ground level (AGL) 3459 feet above mean sea level (AMSL)

This aeronautical study revealed that the structure does not exceed obstruction standards and would not be a hazard to air navigation provided the following condition(s), if any, is(are) met:

Based on this evaluation, marking and lighting are not necessary for aviation safety. However, if marking and/or lighting are accomplished on a voluntary basis, we recommend it be installed and maintained in accordance with FAA Advisory circular 70/7460-1 K Change 2.

Any height exceeding 170 feet above ground level (3459 feet above mean sea level), will result in a substantial adverse effect and would warrant a Determination of Hazard to Air Navigation.

This determination expires on 05/10/2011 unless:

- (a) extended, revised or terminated by the issuing office.
- (b) the construction is subject to the licensing authority of the Federal Communications Commission (FCC) and an application for a construction permit has been filed, as required by the FCC, within 6 months of the date of this determination. In such case, the determination expires on the date prescribed by the FCC for completion of construction, or the date the FCC denies the application.

NOTE: REQUEST FOR EXTENSION OF THE EFFECTIVE PERIOD OF THIS DETERMINATION MUST BE POSTMARKED OR DELIVERED TO THIS OFFICE AT LEAST 15 DAYS PRIOR TO THE EXPIRATION DATE.

This determination is based, in part, on the foregoing description which includes specific coordinates, heights, frequency(ies) and power. Any changes in coordinates, heights, and frequencies or use of greater power will



void this determination. Any future construction or alteration , including increase to heights, power, or the addition of other transmitters, requires separate notice to the FAA.

This determination does include temporary construction equipment such as cranes, derricks, etc., which may be used during actual construction of the structure. However, this equipment shall not exceed the overall heights as indicated above. Equipment which has a height greater than the studied structure requires separate notice to the FAA.

This determination concerns the effect of this structure on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

If we can be of further assistance, please contact our office at (310) 725-6557. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2009-AWP-4978-OE.

**Signature Control No: 659752-120096357**

Karen McDonald  
Specialist

( DNE )

Attachment(s)  
Case Description  
Map(s)

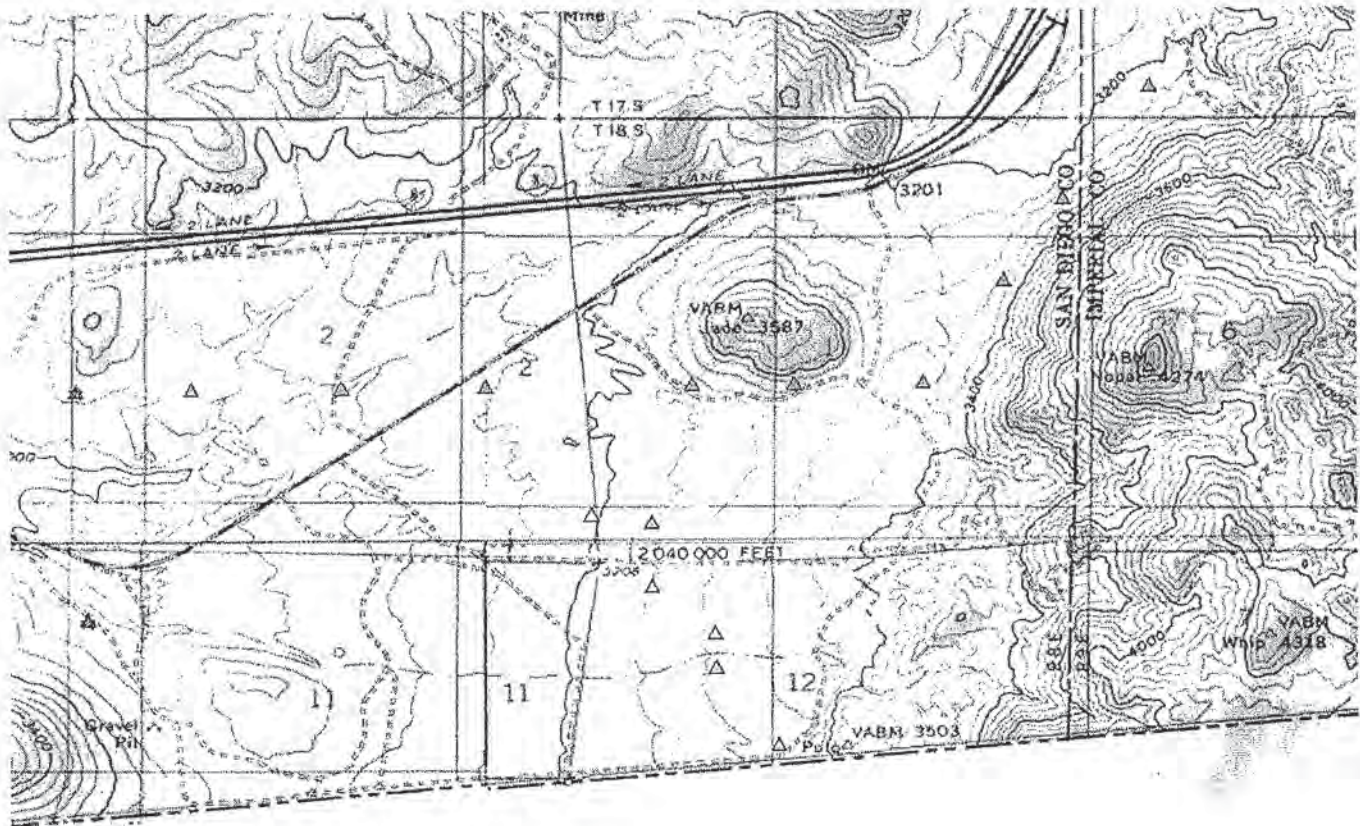


**Case Description for ASN 2009-AWP-4978-OE**

Installation of a 500 Kv line



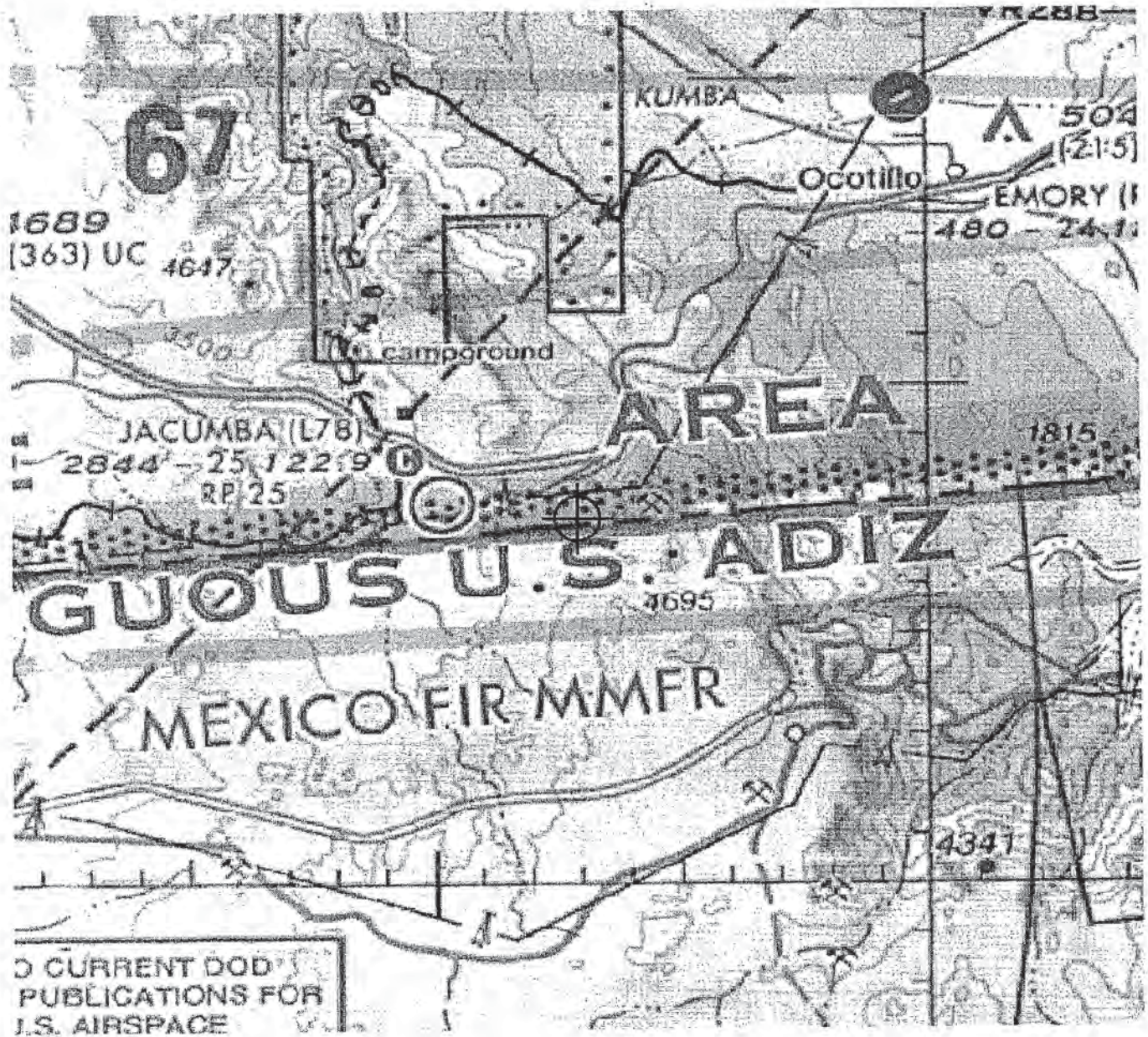
Verified Map for ASN 2009-AWP-4978-OE



Mexico

Mexico









Federal Aviation Administration  
Air Traffic Airspace Branch, ASW-520  
2601 Meacham Blvd.  
Fort Worth, TX 76137-0520

Aeronautical Study No.  
2009-AWP-4975-OE

Issued Date: 11/10/2009

Joan Heredia  
Sempra Global  
101 Ash St HQ8B  
San Diego, CA 92101

**\*\* DETERMINATION OF NO HAZARD TO AIR NAVIGATION \*\***

The Federal Aviation Administration has conducted an aeronautical study under the provisions of 49 U.S.C., Section 44718 and if applicable Title 14 of the Code of Federal Regulations, part 77, concerning:

Structure:	Transmission Line 500Cr1
Location:	jacumba, CA
Latitude:	32-37-32.00N NAD 83
Longitude:	116-07-13.00W
Heights:	170 feet above ground level (AGL) 3407 feet above mean sea level (AMSL)

This aeronautical study revealed that the structure does not exceed obstruction standards and would not be a hazard to air navigation provided the following condition(s), if any, is(are) met:

Based on this evaluation, marking and lighting are not necessary for aviation safety. However, if marking and/or lighting are accomplished on a voluntary basis, we recommend it be installed and maintained in accordance with FAA Advisory circular 70/7460-1 K Change 2.

Any height exceeding 170 feet above ground level (3407 feet above mean sea level), will result in a substantial adverse effect and would warrant a Determination of Hazard to Air Navigation.

This determination expires on 05/10/2011 unless:

- (a) extended, revised or terminated by the issuing office.
- (b) the construction is subject to the licensing authority of the Federal Communications Commission (FCC) and an application for a construction permit has been filed, as required by the FCC, within 6 months of the date of this determination. In such case, the determination expires on the date prescribed by the FCC for completion of construction, or the date the FCC denies the application.

NOTE: REQUEST FOR EXTENSION OF THE EFFECTIVE PERIOD OF THIS DETERMINATION MUST BE POSTMARKED OR DELIVERED TO THIS OFFICE AT LEAST 15 DAYS PRIOR TO THE EXPIRATION DATE.

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void this determination. Any future construction or alteration , including increase to heights, power, or the addition of other transmitters, requires separate notice to the FAA.

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This determination concerns the effect of this structure on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

If we can be of further assistance, please contact our office at (310) 725-6557. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2009-AWP-4975-OE.

**Signature Control No: 659749-120096358**

( DNE )

Karen McDonald  
Specialist

Attachment(s)  
Case Description  
Map(s)

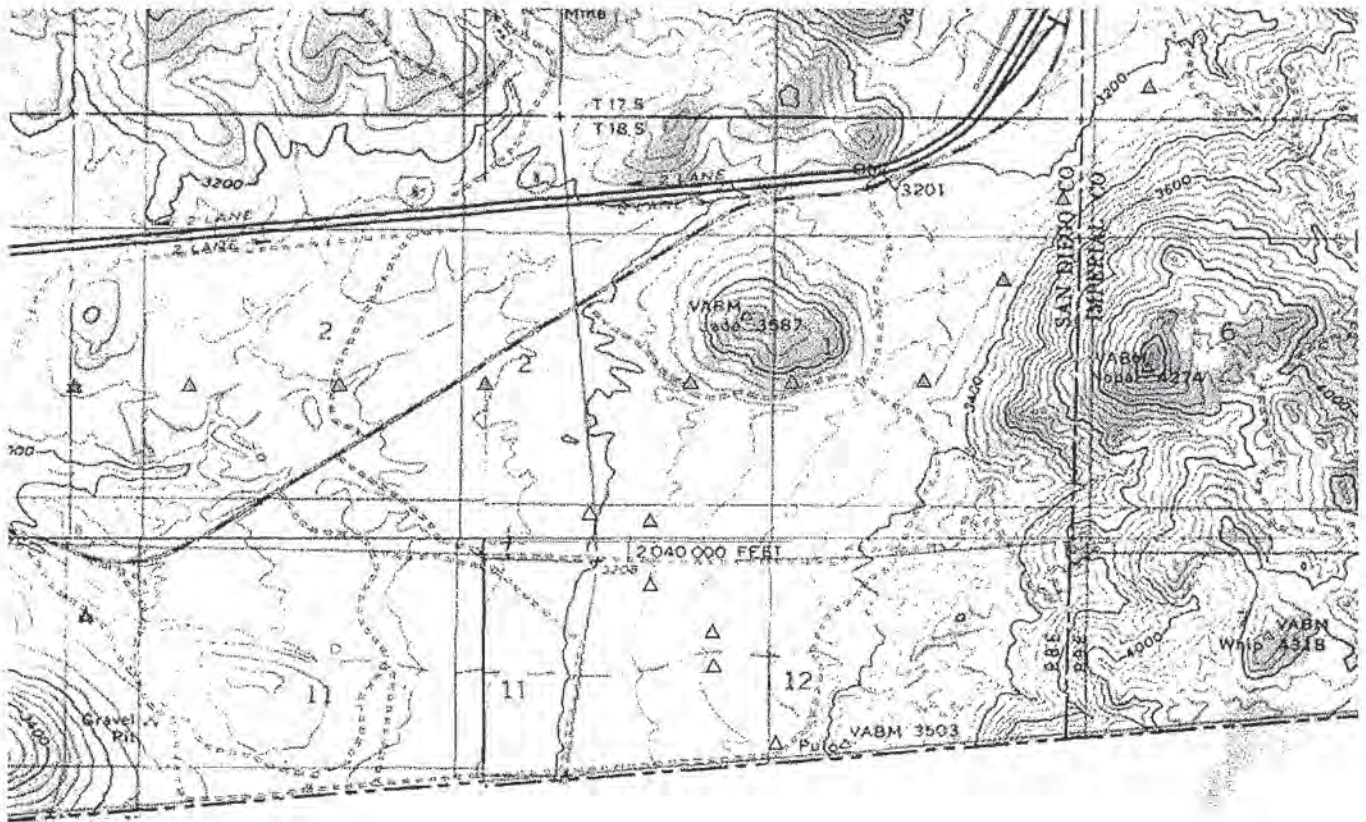


## **Case Description for ASN 2009-AWP-4975-OE**

Installation of a 500 kV transmission line



Verified Map for ASN 2009-AWP-4975-OE



Mexico

Mexico







scoping process] in preparing such an EIS.”

#### Identification of Environmental Issues

When publishing its notice of intent to prepare an EA on August 4, 2008, DOE opened a 30-day scoping period during which the public was invited to participate in the identification of potential environmental impacts that may result from construction of the ESJ transmission line project and reasonable alternatives. DOE conducted two scoping meetings in Jacumba. Nine issues and concerns were identified as a result of the scoping opportunity. These issues and concerns are (1) visual impacts, (2) avian mortality, (3) impacts to protected, threatened, endangered, or sensitive species of animals or plants, or their critical habitats, (4) impacts to cultural or historic resources, (6) impacts to human health and safety, (6) impacts to air, soil, and water, (7) land use impacts, (8) impacts of seismic activity, and (9) impacts from development of wind generation. In the EIS DOE will analyze these issues and others it finds appropriate to address, such as greenhouse gas emissions and global climate change and also intentional destructive acts, such as terrorism. No additional construction or routing alternatives were proposed as a result of the scoping process.

Several commenters in this proceeding have asked DOE to evaluate the impacts associated with activities that will occur inside Mexico (e.g., from the construction and operation in Mexico of the wind generators). NEPA does not require an analysis of environmental impacts that occur within another sovereign nation that result from approved actions by that nation. The EIS, however, will evaluate all relevant environmental impacts within the U.S. related to or caused by project-related activities in Mexico.

Based on comments received during the initial EA process, and the potential for public controversy, DOE has determined an EIS to be the proper NEPA compliance document.

#### EIS Preparation and Schedule

In preparing the Draft EIS, DOE will consider comments received during the scoping period. Because of previous public participation activities, DOE does not plan to conduct additional scoping meetings for this EIS. However, any timely additional written comments submitted will be considered by DOE in determining the scope of the EIS.

DOE anticipates issuing a Draft EIS in the fall of 2009. DOE will provide a public comment period of at least 45 days from the Environmental Protection

Agency's (EPA's) Notice of Availability (NOA) of the Draft EIS and will hold at least one public hearing during the public comment period.

DOE will include all comments received on the Draft EIS, and responses to those comments, in the Final EIS. DOE will issue a Record of Decision no sooner than 30 days from EPA's NOA of the Final EIS.

Persons who submitted comments during the scoping process will receive a copy of the Draft EIS. Other persons who would like to receive a copy of the document for review when it is issued should notify Dr. Jerry Pell at the address provided above.

Issued in Washington, DC, on February 18, 2009.

**Patricia A. Hoffman,**

*Acting Assistant Secretary, Office of Electricity Delivery and Energy Reliability.*

[FR Doc. E9-4049 Filed 2-24-09; 8:45 am]

**BILLING CODE 6450-01-P**









Federal Aviation Administration  
Air Traffic Airspace Branch, ASW-520  
2601 Meacham Blvd.  
Fort Worth, TX 76137-0520

Aeronautical Study No.  
2009-AWP-4974-OE

Issued Date: 11/10/2009

Joan Heredia  
Sempra Global  
101 Ash St HQ8B  
San Diego, CA 92101

**\*\* DETERMINATION OF NO HAZARD TO AIR NAVIGATION \*\***

The Federal Aviation Administration has conducted an aeronautical study under the provisions of 49 U.S.C., Section 44718 and if applicable Title 14 of the Code of Federal Regulations, part 77, concerning:

Structure:	Transmission Line 230Ar1
Location:	jacumba, CA
Latitude:	32-37-05.24N NAD 83
Longitude:	116-06-57.68W
Heights:	170 feet above ground level (AGL) 3470 feet above mean sea level (AMSL)

This aeronautical study revealed that the structure does not exceed obstruction standards and would not be a hazard to air navigation provided the following condition(s), if any, is(are) met:

Based on this evaluation, marking and lighting are not necessary for aviation safety. However, if marking and/or lighting are accomplished on a voluntary basis, we recommend it be installed and maintained in accordance with FAA Advisory circular 70/7460-1 K Change 2.

Any height exceeding 170 feet above ground level (3470 feet above mean sea level), will result in a substantial adverse effect and would warrant a Determination of Hazard to Air Navigation.

This determination expires on 05/10/2011 unless:

- (a) extended, revised or terminated by the issuing office.
- (b) the construction is subject to the licensing authority of the Federal Communications Commission (FCC) and an application for a construction permit has been filed, as required by the FCC, within 6 months of the date of this determination. In such case, the determination expires on the date prescribed by the FCC for completion of construction, or the date the FCC denies the application.

**NOTE: REQUEST FOR EXTENSION OF THE EFFECTIVE PERIOD OF THIS DETERMINATION MUST BE POSTMARKED OR DELIVERED TO THIS OFFICE AT LEAST 15 DAYS PRIOR TO THE EXPIRATION DATE.**

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void this determination. Any future construction or alteration , including increase to heights, power, or the addition of other transmitters, requires separate notice to the FAA.

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This determination concerns the effect of this structure on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

If we can be of further assistance, please contact our office at (310) 725-6557. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2009-AWP-4974-OE.

**Signature Control No: 659748-120096361**

( DNE )

Karen McDonald  
Specialist

Attachment(s)  
Case Description  
Map(s)

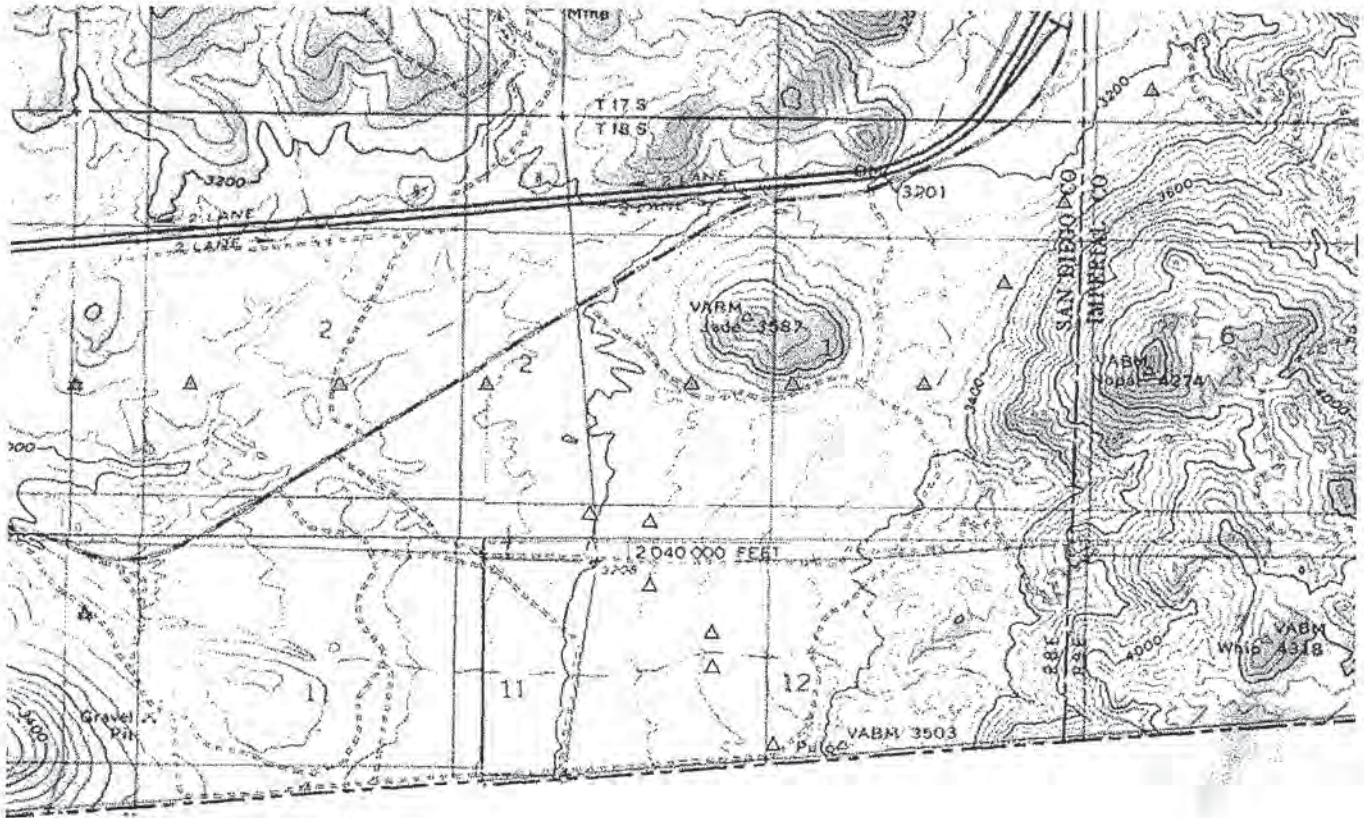


**Case Description for ASN 2009-AWP-4974-OE**

Installation of a 230kV transmission line



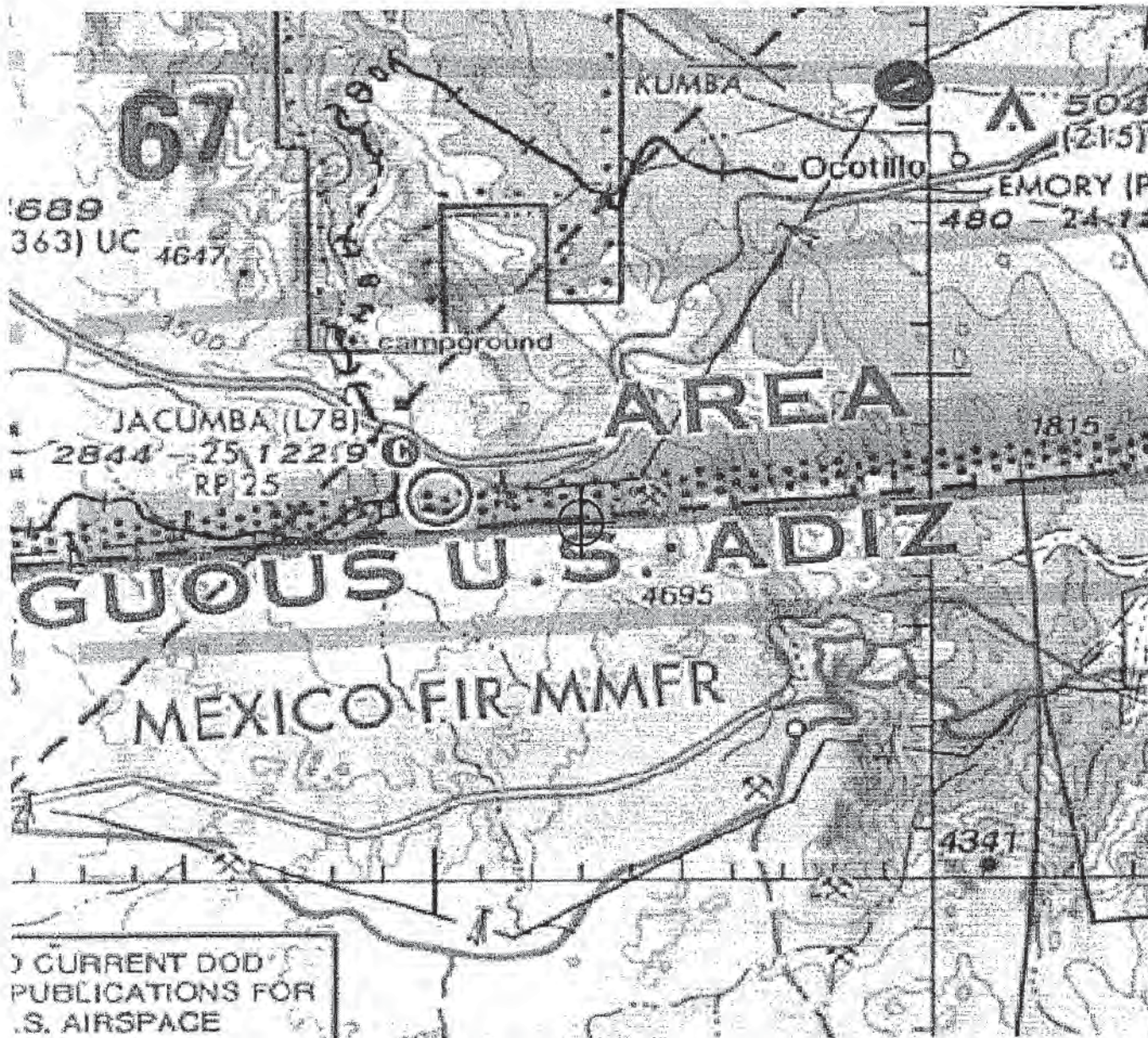
Verified Map for ASN 2009-AWP-4974-OE



Mexico

Mexico









Federal Aviation Administration  
Air Traffic Airspace Branch, ASW-520  
2601 Meacham Blvd.  
Fort Worth, TX 76137-0520

Aeronautical Study No.  
2009-AWP-4976-OE

Issued Date: 11/10/2009

Joan Heredia  
Semptra Global  
101 Ash St HQ8B  
San Diego, CA 92101

**\*\* DETERMINATION OF NO HAZARD TO AIR NAVIGATION \*\***

The Federal Aviation Administration has conducted an aeronautical study under the provisions of 49 U.S.C., Section 44718 and if applicable Title 14 of the Code of Federal Regulations, part 77, concerning:

Structure:	Transmission Line 230Br1
Location:	jacumba, CA
Latitude:	32-37-14.59N NAD 83
Longitude:	116-07-05.20W
Heights:	170 feet above ground level (AGL) 3458 feet above mean sea level (AMSL)

This aeronautical study revealed that the structure does not exceed obstruction standards and would not be a hazard to air navigation provided the following condition(s), if any, is(are) met:

Based on this evaluation, marking and lighting are not necessary for aviation safety. However, if marking and/or lighting are accomplished on a voluntary basis, we recommend it be installed and maintained in accordance with FAA Advisory circular 70/7460-1 K Change 2.

Any height exceeding 170 feet above ground level (3458 feet above mean sea level), will result in a substantial adverse effect and would warrant a Determination of Hazard to Air Navigation.

This determination expires on 05/10/2011 unless:

- (a) extended, revised or terminated by the issuing office.
- (b) the construction is subject to the licensing authority of the Federal Communications Commission (FCC) and an application for a construction permit has been filed, as required by the FCC, within 6 months of the date of this determination. In such case, the determination expires on the date prescribed by the FCC for completion of construction, or the date the FCC denies the application.

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This determination is based, in part, on the foregoing description which includes specific coordinates, heights, frequency(ies) and power. Any changes in coordinates, heights, and frequencies or use of greater power will



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This determination does include temporary construction equipment such as cranes, derricks, etc., which may be used during actual construction of the structure. However, this equipment shall not exceed the overall heights as indicated above. Equipment which has a height greater than the studied structure requires separate notice to the FAA.

This determination concerns the effect of this structure on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

If we can be of further assistance, please contact our office at (310) 725-6557. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2009-AWP-4976-OE.

**Signature Control No: 659750-120096359**

( DNE )

Karen McDonald  
Specialist

Attachment(s)  
Case Description  
Map(s)

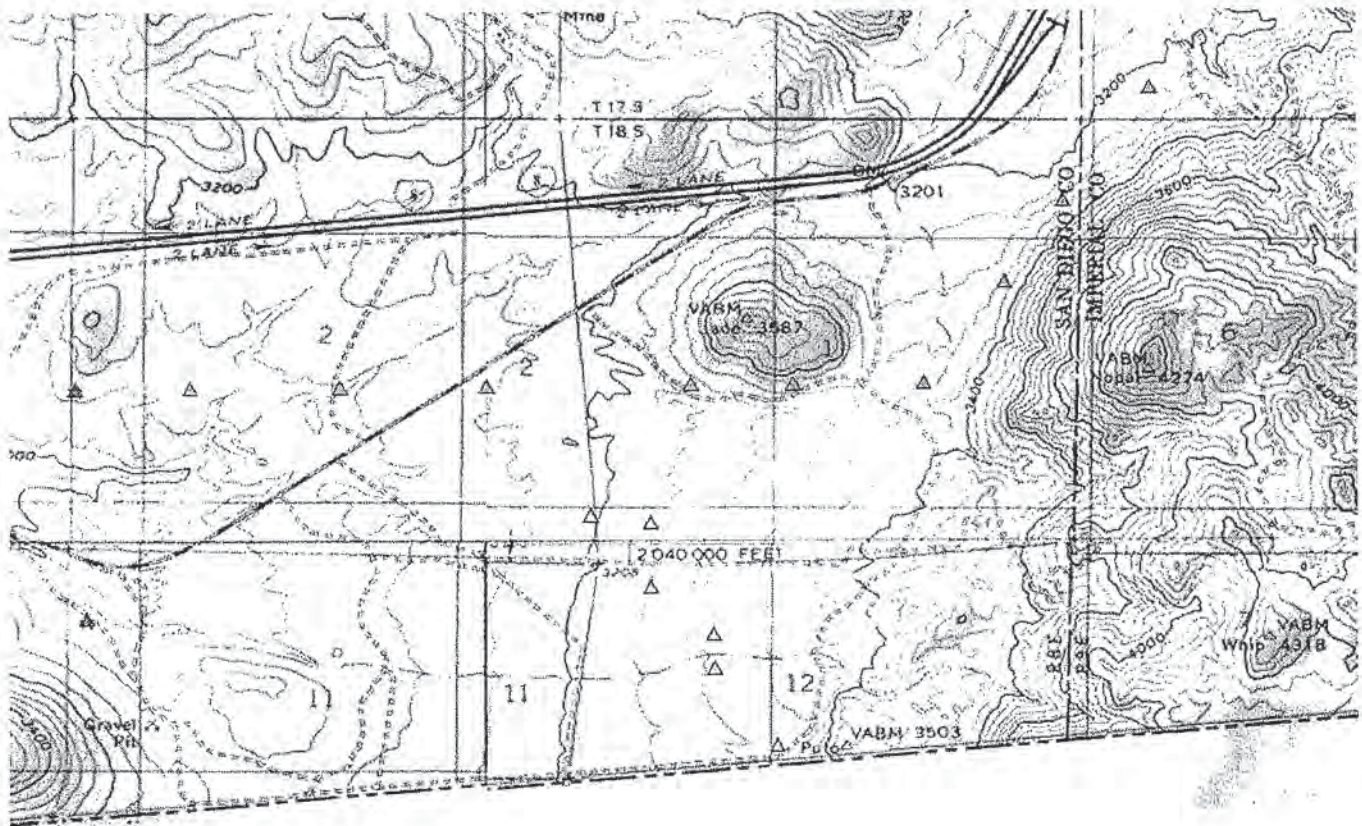


## Case Description for ASN 2009-AWP-4976-OE

Installatin of a 230 kV transmission line



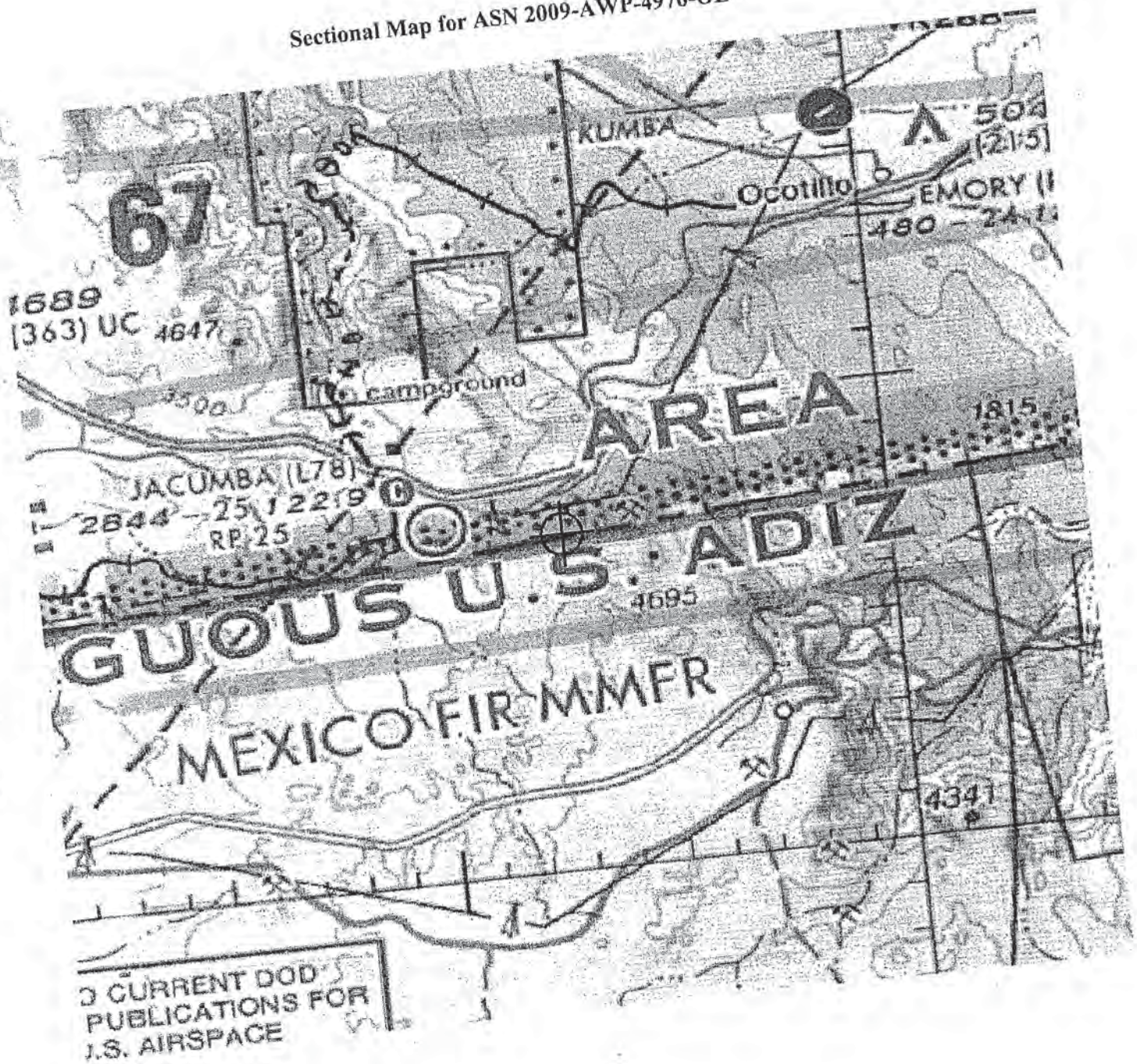
Verified Map for ASN 2009-AWP-4976-OE



Mexico

Mexico









Federal Aviation Administration  
Air Traffic Airspace Branch; ASW-520  
2601 Meacham Blvd.  
Fort Worth, TX 76137-0520

Aeronautical Study No.  
2009-AWP-4977-OE

Issued Date: 11/10/2009

Joan Heredia  
Sempra Global  
101 Ash St HQ8B  
San Diego, CA 92101

**\*\* DETERMINATION OF NO HAZARD TO AIR NAVIGATION \*\***

The Federal Aviation Administration has conducted an aeronautical study under the provisions of 49 U.S.C., Section 44718 and if applicable Title 14 of the Code of Federal Regulations, part 77, concerning:

Structure:	Transmission Line 230Cr1
Location:	jacumba, CA
Latitude:	32-37-24.26N NAD 83
Longitude:	116-07-12.96W
Heights:	170 feet above ground level (AGL) 3415 feet above mean sea level (AMSL)

This aeronautical study revealed that the structure does not exceed obstruction standards and would not be a hazard to air navigation provided the following condition(s), if any, is(are) met:

Based on this evaluation, marking and lighting are not necessary for aviation safety. However, if marking and/or lighting are accomplished on a voluntary basis, we recommend it be installed and maintained in accordance with FAA Advisory circular 70/7460-1 K Change 2.

Any height exceeding 170 feet above ground level (3415 feet above mean sea level), will result in a substantial adverse effect and would warrant a Determination of Hazard to Air Navigation.

This determination expires on 05/10/2011 unless:

- (a) extended, revised or terminated by the issuing office.
- (b) the construction is subject to the licensing authority of the Federal Communications Commission (FCC) and an application for a construction permit has been filed, as required by the FCC, within 6 months of the date of this determination. In such case, the determination expires on the date prescribed by the FCC for completion of construction, or the date the FCC denies the application.

**NOTE: REQUEST FOR EXTENSION OF THE EFFECTIVE PERIOD OF THIS DETERMINATION MUST BE POSTMARKED OR DELIVERED TO THIS OFFICE AT LEAST 15 DAYS PRIOR TO THE EXPIRATION DATE.**

This determination is based, in part, on the foregoing description which includes specific coordinates, heights, frequency(ies) and power. Any changes in coordinates, heights, and frequencies or use of greater power will



void this determination. Any future construction or alteration , including increase to heights, power, or the addition of other transmitters, requires separate notice to the FAA.

This determination does include temporary construction equipment such as cranes, derricks, etc., which may be used during actual construction of the structure. However, this equipment shall not exceed the overall heights as indicated above. Equipment which has a height greater than the studied structure requires separate notice to the FAA.

This determination concerns the effect of this structure on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

If we can be of further assistance, please contact our office at (310) 725-6557. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2009-AWP-4977-OE.

**Signature Control No: 659751-120096360**

( DNE )

Karen McDonald  
Specialist

Attachment(s)  
Case Description  
Map(s)

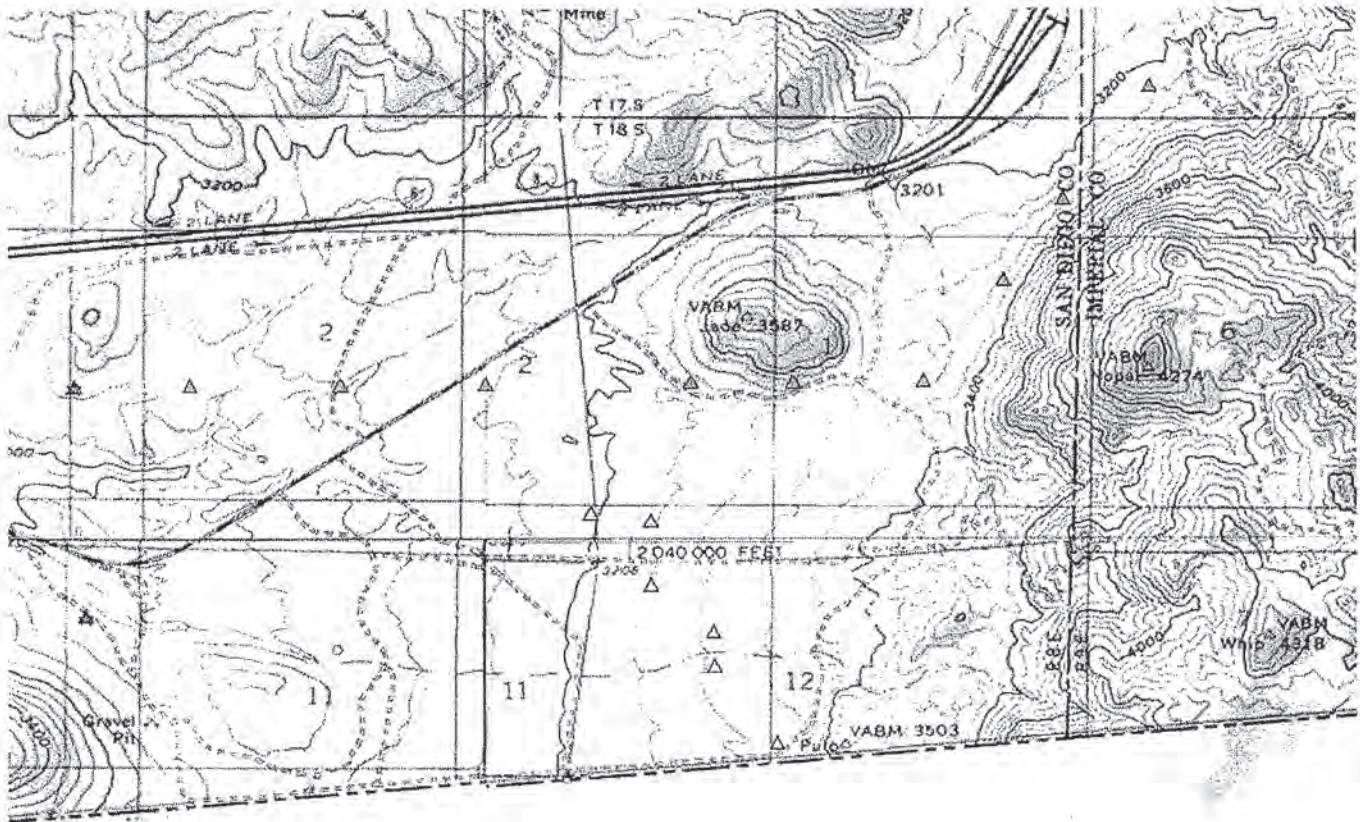


## **Case Description for ASN 2009-AWP-4977-OE**

Installatin of a 2300 kV transmission line



Verified Map for ASN 2009-AWP-4977-OE



Mexico

Mexico



Sectional Map for ASN 2009-AWP-4977-OE







Federal Aviation Administration  
Air Traffic Airspace Branch, ASW-520  
2601 Meacham Blvd.  
Fort Worth, TX 76137-0520

Aeronautical Study No.  
2009-AWP-4979-OE

Issued Date: 11/10/2009

Joan Heredia  
Sempra Global  
101 Ash St HQ8B  
San Diego, CA 92101

**\*\* DETERMINATION OF NO HAZARD TO AIR NAVIGATION \*\***

The Federal Aviation Administration has conducted an aeronautical study under the provisions of 49 U.S.C., Section 44718 and if applicable Title 14 of the Code of Federal Regulations, part 77, concerning:

Structure:	Transmission Line 230Dr1
Location:	Jacumba, CA
Latitude:	32-37-32.97N NAD 83
Longitude:	116-07-20.31W
Heights:	170 feet above ground level (AGL) 3370 feet above mean sea level (AMSL)

This aeronautical study revealed that the structure does not exceed obstruction standards and would not be a hazard to air navigation provided the following condition(s), if any, is(are) met:

Based on this evaluation, marking and lighting are not necessary for aviation safety. However, if marking and/or lighting are accomplished on a voluntary basis, we recommend it be installed and maintained in accordance with FAA Advisory circular 70/7460-1 K Change 2.

Any height exceeding 170 feet above ground level (3370 feet above mean sea level), will result in a substantial adverse effect and would warrant a Determination of Hazard to Air Navigation.

This determination expires on 05/10/2011 unless:

- (a) extended, revised or terminated by the issuing office.
- (b) the construction is subject to the licensing authority of the Federal Communications Commission (FCC) and an application for a construction permit has been filed, as required by the FCC, within 6 months of the date of this determination. In such case, the determination expires on the date prescribed by the FCC for completion of construction, or the date the FCC denies the application.

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If we can be of further assistance, please contact our office at (310) 725-6557. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2009-AWP-4979-OE.

**Signature Control No: 659756-120096362**

( DNE )

Karen McDonald  
Specialist

Attachment(s)  
Case Description  
Map(s)

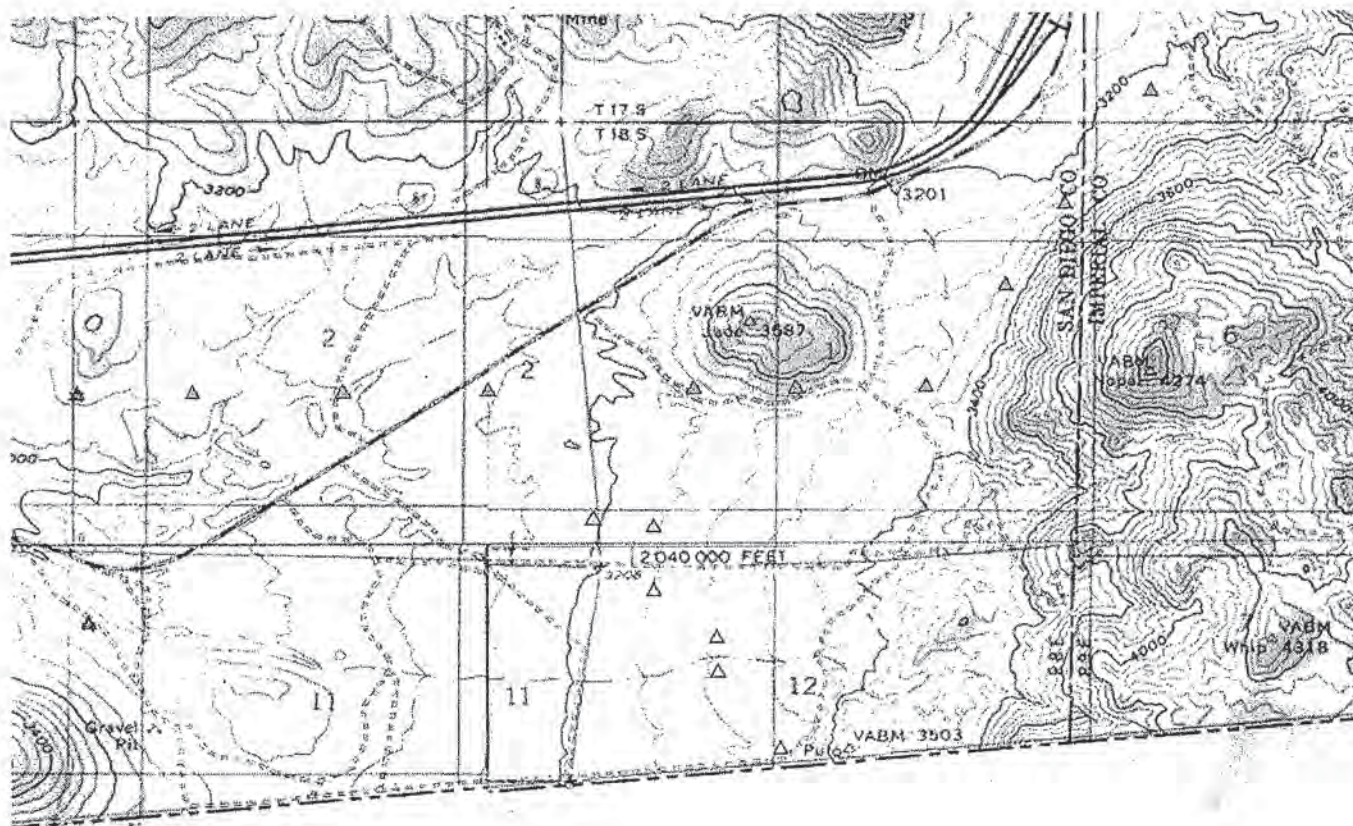


**Case Description for ASN 2009-AWP-4979-OE**

Installatin of a 230kV transmission line



Verified Map for ASN 2009-AWP-4979-OE

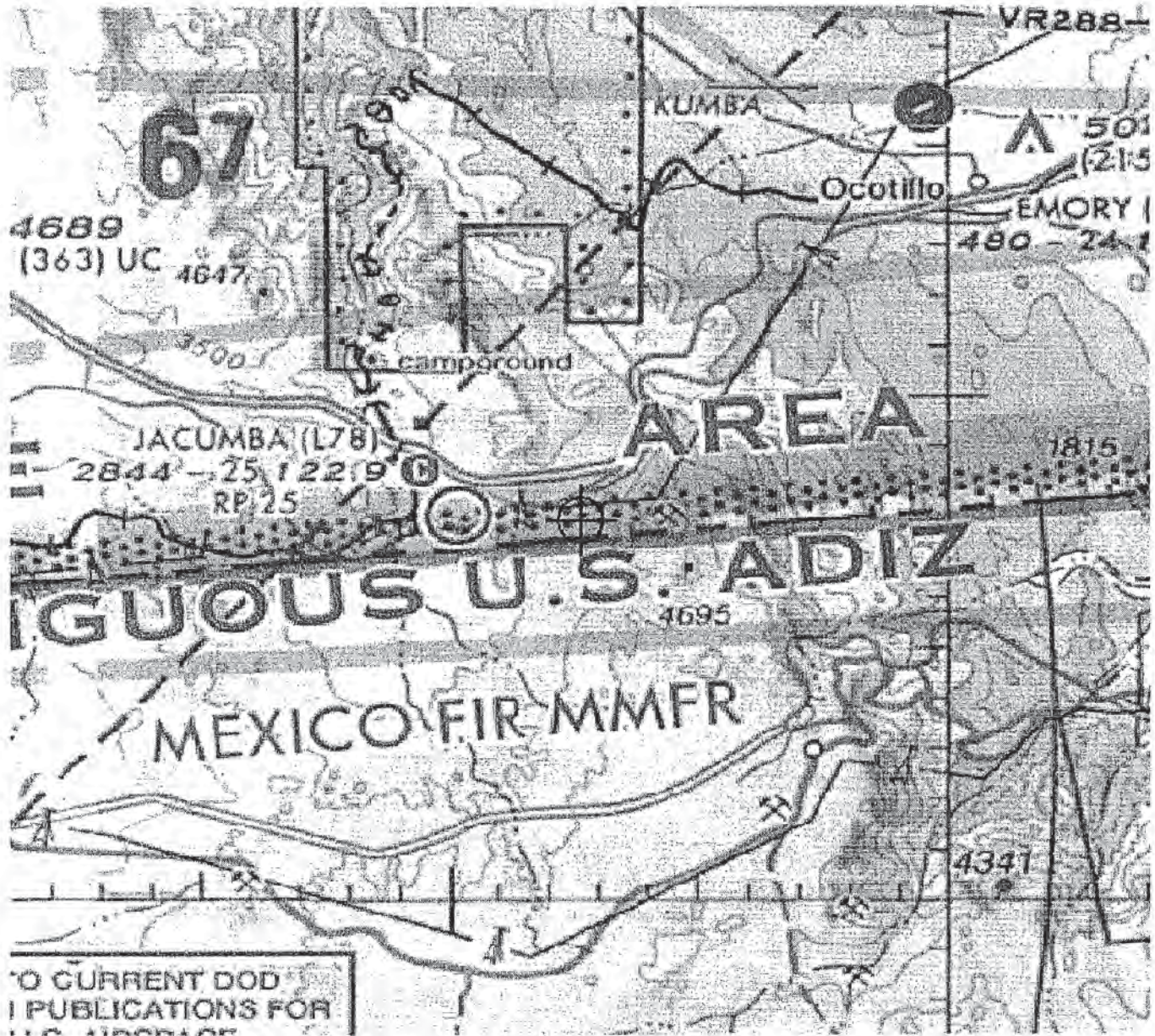


Mexico

Mexico



Sectional Map for ASN 2009-AWP-4979-OE







Federal Aviation Administration  
Air Traffic Airspace Branch, ASW-520  
2601 Meacham Blvd.  
Fort Worth, TX 76137-0520

Aeronautical Study No.  
2009-AWP-4978-OE

Issued Date: 11/10/2009

Joan Heredia  
Semptra Global  
101 Ash St HQ8B  
San Diego, CA 92101

**\*\* DETERMINATION OF NO HAZARD TO AIR NAVIGATION \*\***

The Federal Aviation Administration has conducted an aeronautical study under the provisions of 49 U.S.C., Section 44718 and if applicable Title 14 of the Code of Federal Regulations, part 77, concerning:

Structure:	Transmission Line 500Br1
Location:	jacumba, CA
Latitude:	32-37-18.64N NAD 83
Longitude:	116-07-05.36W
Heights:	170 feet above ground level (AGL) 3459 feet above mean sea level (AMSL)

This aeronautical study revealed that the structure does not exceed obstruction standards and would not be a hazard to air navigation provided the following condition(s), if any, is(are) met:

Based on this evaluation, marking and lighting are not necessary for aviation safety. However, if marking and/or lighting are accomplished on a voluntary basis, we recommend it be installed and maintained in accordance with FAA Advisory circular 70/7460-1 K Change 2.

Any height exceeding 170 feet above ground level (3459 feet above mean sea level), will result in a substantial adverse effect and would warrant a Determination of Hazard to Air Navigation.

This determination expires on 05/10/2011 unless:

- (a) extended, revised or terminated by the issuing office.
- (b) the construction is subject to the licensing authority of the Federal Communications Commission (FCC) and an application for a construction permit has been filed, as required by the FCC, within 6 months of the date of this determination. In such case, the determination expires on the date prescribed by the FCC for completion of construction, or the date the FCC denies the application.

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If we can be of further assistance, please contact our office at (310) 725-6557. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2009-AWP-4978-OE.

**Signature Control No: 659752-120096357**

Karen McDonald  
Specialist

( DNE )

Attachment(s)  
Case Description  
Map(s)

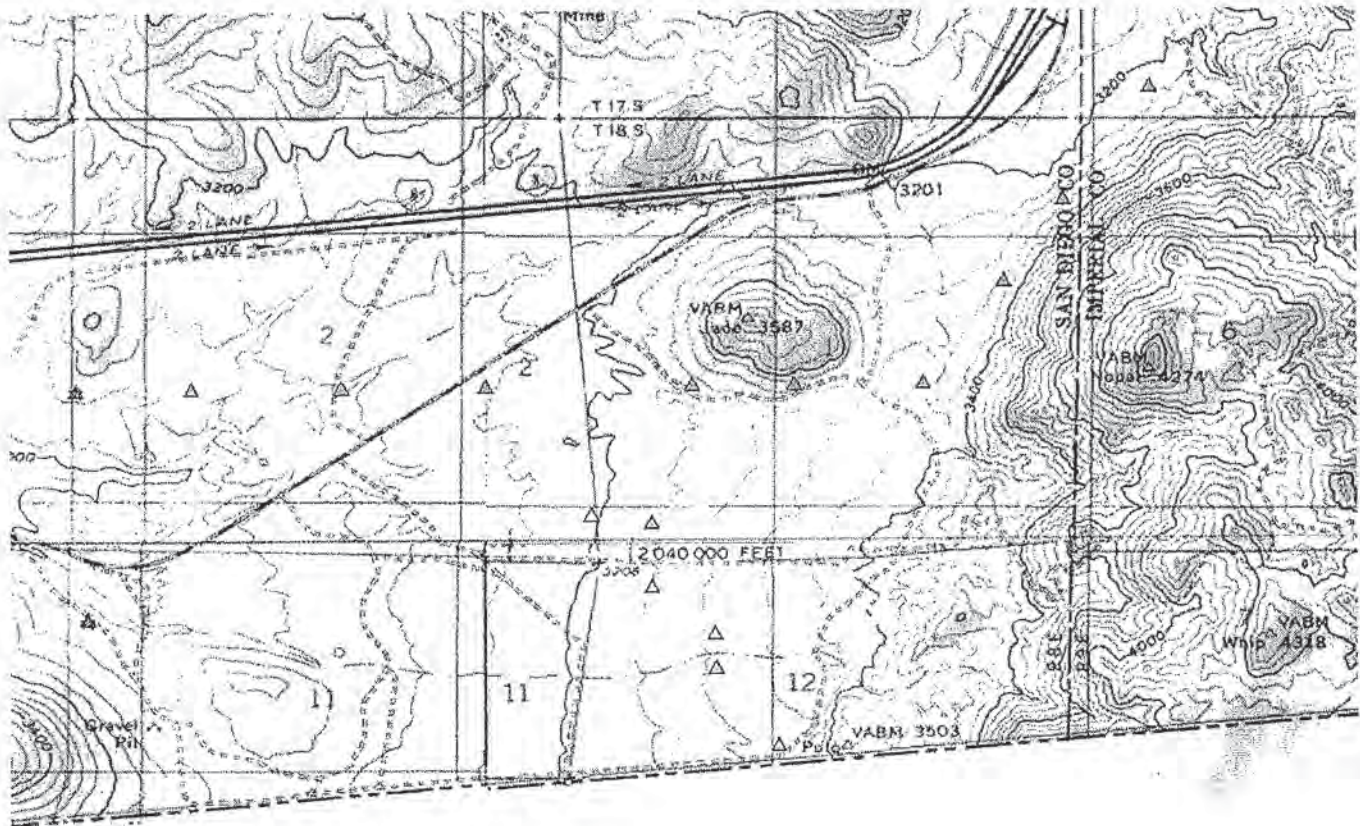


**Case Description for ASN 2009-AWP-4978-OE**

Installation of a 500 Kv line



Verified Map for ASN 2009-AWP-4978-OE



Mexico

Mexico









Federal Aviation Administration  
Air Traffic Airspace Branch, ASW-520  
2601 Meacham Blvd.  
Fort Worth, TX 76137-0520

Aeronautical Study No.  
2009-AWP-4975-OE

Issued Date: 11/10/2009

Joan Heredia  
Sempra Global  
101 Ash St HQ8B  
San Diego, CA 92101

**\*\* DETERMINATION OF NO HAZARD TO AIR NAVIGATION \*\***

The Federal Aviation Administration has conducted an aeronautical study under the provisions of 49 U.S.C., Section 44718 and if applicable Title 14 of the Code of Federal Regulations, part 77, concerning:

Structure:	Transmission Line 500Cr1
Location:	jacumba, CA
Latitude:	32-37-32.00N NAD 83
Longitude:	116-07-13.00W
Heights:	170 feet above ground level (AGL) 3407 feet above mean sea level (AMSL)

This aeronautical study revealed that the structure does not exceed obstruction standards and would not be a hazard to air navigation provided the following condition(s), if any, is(are) met:

Based on this evaluation, marking and lighting are not necessary for aviation safety. However, if marking and/or lighting are accomplished on a voluntary basis, we recommend it be installed and maintained in accordance with FAA Advisory circular 70/7460-1 K Change 2.

Any height exceeding 170 feet above ground level (3407 feet above mean sea level), will result in a substantial adverse effect and would warrant a Determination of Hazard to Air Navigation.

This determination expires on 05/10/2011 unless:

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- (b) the construction is subject to the licensing authority of the Federal Communications Commission (FCC) and an application for a construction permit has been filed, as required by the FCC, within 6 months of the date of this determination. In such case, the determination expires on the date prescribed by the FCC for completion of construction, or the date the FCC denies the application.

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If we can be of further assistance, please contact our office at (310) 725-6557. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2009-AWP-4975-OE.

**Signature Control No: 659749-120096358**

( DNE )

Karen McDonald  
Specialist

Attachment(s)  
Case Description  
Map(s)

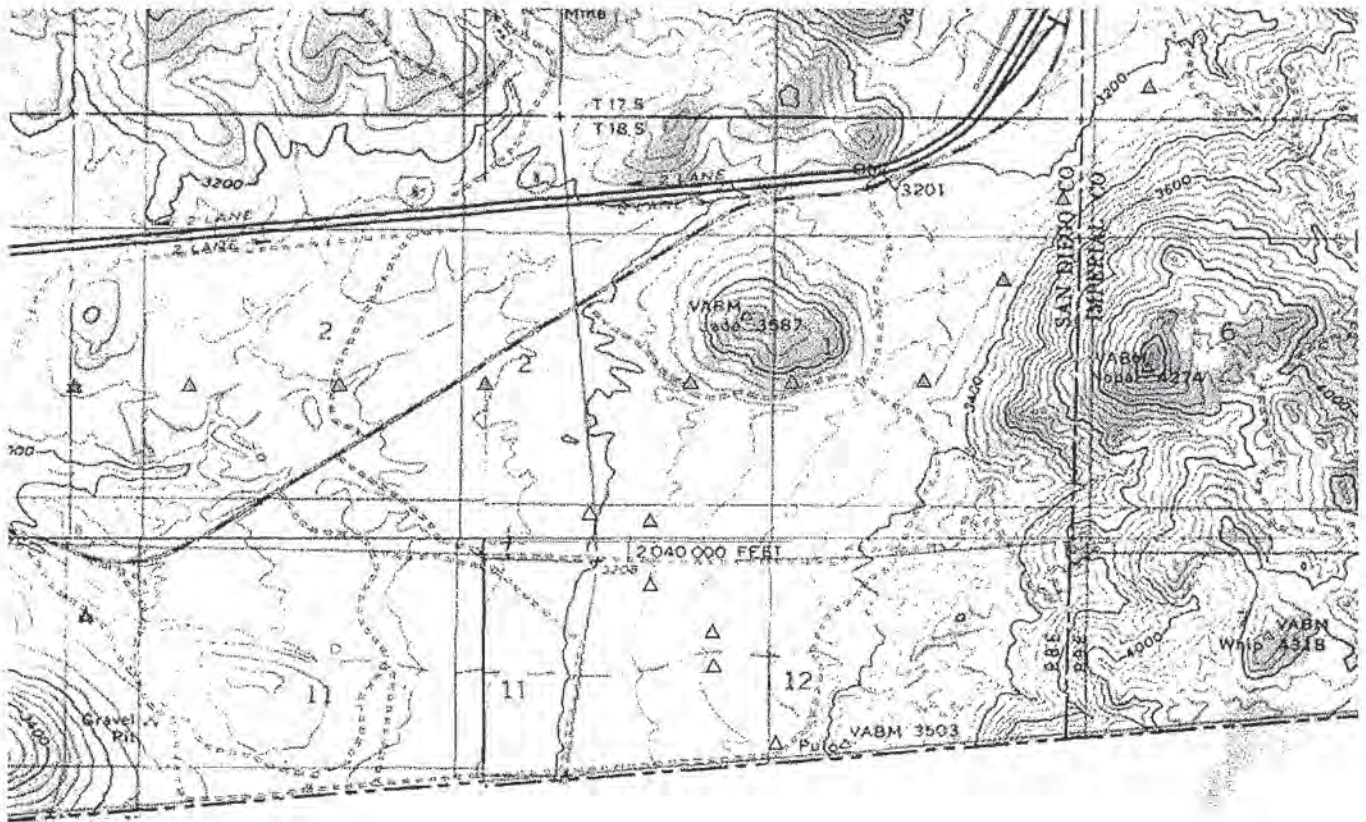


## **Case Description for ASN 2009-AWP-4975-OE**

Installation of a 500 kV transmission line



Verified Map for ASN 2009-AWP-4975-OE



Mexico

Mexico







## **Appendix C Biological Resources Technical Report**



## CONTENTS

- Appendix C.1 2008 & 2009 Quino Checkerspot Butterfly Survey Reports
- Appendix C.2 Floral Species Documented on and Adjacent to the ESJ U.S. Transmission Line Project Site<sup>1</sup>
- Appendix C.3 Special-status Plant Species Known or Potentially Occurring at the ESJ U.S. Transmission Line Project Site<sup>1</sup>
- Appendix C.4 Wildlife Species Observed/Detected on the ESJ U.S. Transmission Line Project Site<sup>1</sup>
- Appendix C.5 Special-status Wildlife Species Known or Potentially Occurring at the ESJ U.S. Transmission Line Project Site<sup>1</sup>
- Appendix C.6 Special-status Wildlife Species Known or Potentially Occurring at the ESJ U.S. Transmission Line Project Groundwater Well Access Road<sup>2</sup>
- Appendix C.7 March 26, 2009 Comment Letter from USFWS: Comments on the NOI to Prepare an EIS; Energia Sierra Juarez U.S. Transmission, LLC
- Appendix C.8 February 23, 2010, Letter from DOE to USFWS: Initiation of Informal Consultation under Section 7 of the Endangered Species Act
- Appendix C.9 March 24, 2010, Letter from USFWS: Request for Informal Section 7 Consultation on the Proposed Energia Sierra Juarez Transmission Line
- Appendix C.10 March 8, 2011, Letter from DOE to USFWS: Conclusion of Informal Consultation Under §7 of the Endangered Species Act pursuant to 50 CFR 402.08

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<sup>1</sup> Excerpted from the May 2010 Biological Resources Report for the Proposed Energia Sierra Juarez U.S. Gen-Tie Line Project (EDAW 2010b); available online at:  
[http://www.cpuc.ca.gov/environment/info/dudek/ecosub/TechStudies/ESJ\\_AltAlign\\_BTR.pdf](http://www.cpuc.ca.gov/environment/info/dudek/ecosub/TechStudies/ESJ_AltAlign_BTR.pdf)

<sup>2</sup> Excerpted from the February 3, 2011 Biological Resources Report for the Proposed Energia Sierra Juarez U.S. Gen-Tie Line Project Well Access Road (AECOM 2011a); available online at:  
[http://www.cpuc.ca.gov/environment/info/dudek/ecosub/B%5C02STALOC\\_03.04.11\\_County%20of%20SD%20Attach%20G-ESJWaterpermBio.pdf](http://www.cpuc.ca.gov/environment/info/dudek/ecosub/B%5C02STALOC_03.04.11_County%20of%20SD%20Attach%20G-ESJWaterpermBio.pdf)



## Appendix C.1 2008 & 2009 Quino Checkerspot Butterfly Survey Reports







# ROCKS BIOLOGICAL CONSULTING

June 9, 2008

U.S. Fish and Wildlife Service  
Carlsbad Fish and Wildlife Office  
6010 Hidden Valley Rd.  
Carlsbad, CA 92009

Attention: Ms. Sandy Marquez

**Permitted Biologists:**

Jim Rocks: TE-063230-3

Cynthia Jones Daverin: TE-811615-4

**Subject:** Year 2008 45-Day Report for Quino Checkerspot Butterfly Surveys at the Proposed Baja Wind U.S. Transmission Line Project Site near Jacumba, CA

Dear Ms. Marquez:

This letter presents the 45-Day Report for Quino Checkerspot Butterfly (*Euphydryas editha quino*, QCB) surveys at the proposed Baja Wind U.S. Transmission Line Project Site (site), near Jacumba in San Diego County, CA. Survey results were negative for both QCB and larval host plant populations during the 2008 surveys. The survey, including the habitat assessment, was conducted from March 6 to April 28, 2008. Figures showing the survey area boundary and copies of field notes are attached to this report.

**Location**

The proposed Baja Wind U.S. Transmission Line Project will be located sited within an approximately 87-acre area located east of the town of Jacumba, CA, south of Old Highway 80, and immediately north of the international border. The site is on the USGS 7.5' Jacumba Quadrangle (see Figure 1). The site is in the U.S. Fish and Wildlife Service (FWS) recommended Survey Area 1 (2002).

The site is undeveloped, but there are existing dirt roads that are frequently used by the Border Patrol for border surveillance and evidence of trash dumping along the eastern edge of the site. The site is surrounded by relatively undisturbed open space on all sides with Interstate 8 offsite to the north and the US/Mexico border to the south. Figure 2 shows the project site boundary on an aerial photograph. The figures included in this report were provided by Ecology and Environment, Inc. and are assumed to be an accurate representation of the limits of the intended survey area.



### Habitat Assessment

The site is relatively flat to gently sloping with deep alluvial granitic soils in most areas. Several ephemeral washes supporting a relatively high diversity of herbaceous annuals run west-east across the site. Elevation of the site is approximately to 3,100 feet above mean sea level (msl).

The habitat assessment was conducted on March 6, 2008 to assess the phenology of larval host plants and nectar sources if present. The vegetation communities, soils, and general conditions onsite were assessed for their suitability to support QCB. The vegetation community onsite is best classified as Desert Chaparral or Mixed Desert Scrub. Common shrub or perennial species in this habitat include Jojoba (*Simmondsia chinensis*), Waterjacket (*Lycium andersonii*), Lotebush (*Ziziphus parryi* var. *parryi*), Ephedra (*Ephedra* spp.), Gander's Cholla (*Cylindropuntia ganderi* var. *ganderi*), Mohave Yucca (*Yucca schidigera*) and Creosote (*Larrea tridentata*). Annuals present include dense patches of Common Goldfields (*Lasthenia gracilis*), Desert Dandelion (*Malacothrix glabrata*), Scale-bud (*Anisocoma acaulis*), Wild Heliotrope (*Phacelia distans*), California butterweed (*Senecio californicus*), California Coreopsis (*Coreopsis californica* var. *californica*), and Pincushion (*Chaenactis* spp.).

### Methods

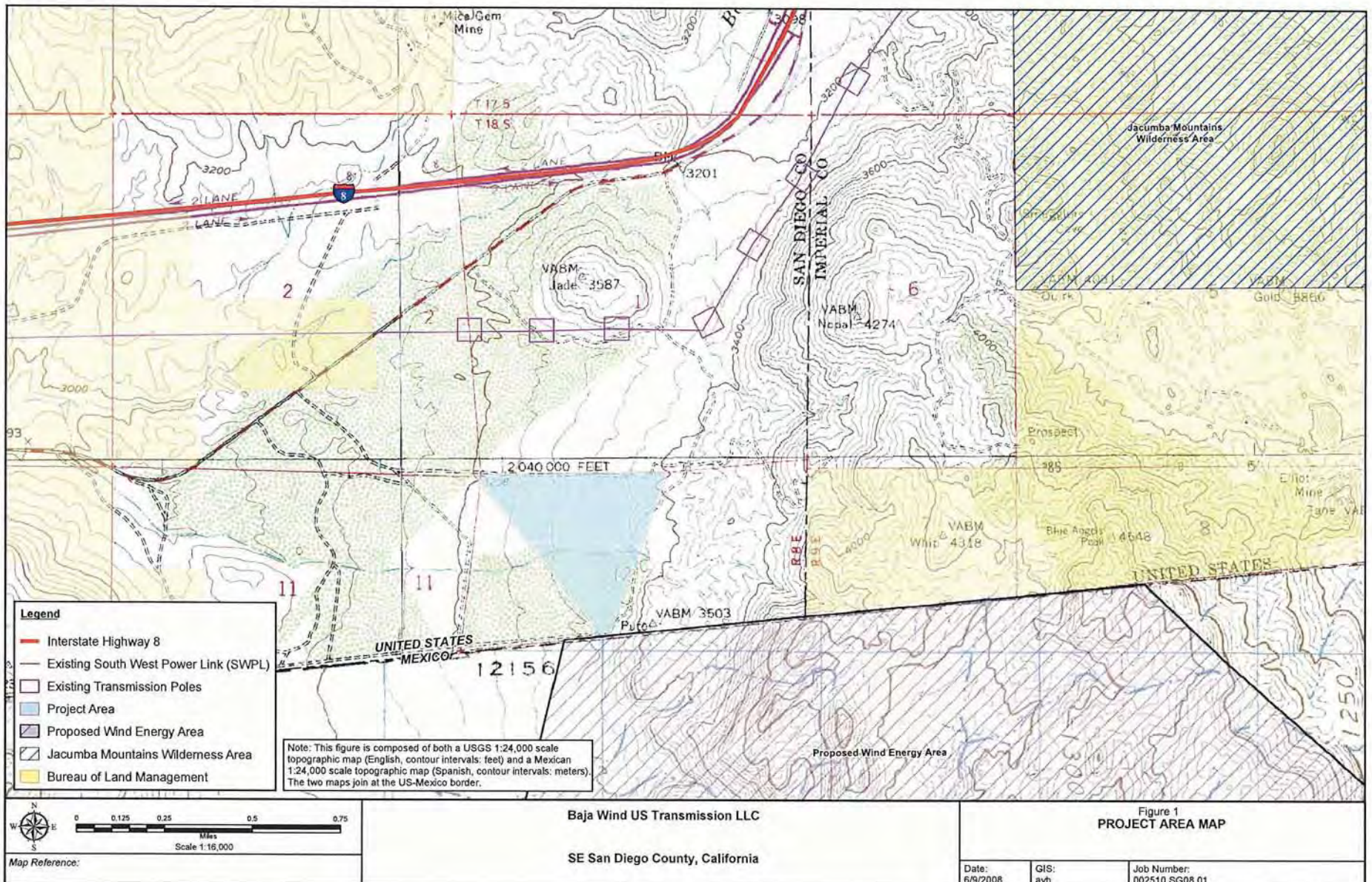
Surveys were performed in accordance with the FWS's "*Quino Checkerspot Butterfly (Euphydryas editha quino) Survey Protocol Information*" dated February 2002. On February 27, 2008, a pre-survey notification letter (the 10-day letter) was sent to the USFWS announcing the intent to conduct surveys for the QCB (Appendix B). The letter included a map of the project site and approximate time the surveys would begin. One field visit to assess the status of host plants and/or nectar sources was performed and six protocol level surveys were completed. More detailed information on the field visit and surveys is presented below. This report is being submitted within the required 45 days to the FWS.

The flight season of QCB is dependent upon adequate rainfall and warm weather to produce supplies of foodplants sufficient for allowing QCB larvae to feed, pupate, and emerge during the spring. In 2008, both in the southwestern and eastern portions of the QCB's range, rain fell in winter and early spring causing the germination of annual plants, but conditions became very dry as spring progressed and many surveyors reported rapid drying and senescence of potential host plants.

Following the rains of late February, a site check for presence of conditions that indicate QCB flight season is imminent or has started was conducted. These conditions include the presence of certain blooming annuals that could potentially be nectar sources, and larval host plants to support caterpillars. Conditions were not ready for surveys on March 6, 2008 as development of annual plants was not sufficient.

Mr. Rocks visited the FWS Jacumba "reference site" on March 29 and April 16, 2008 to compare the phenology of host plants and nectar sources between the reference site and

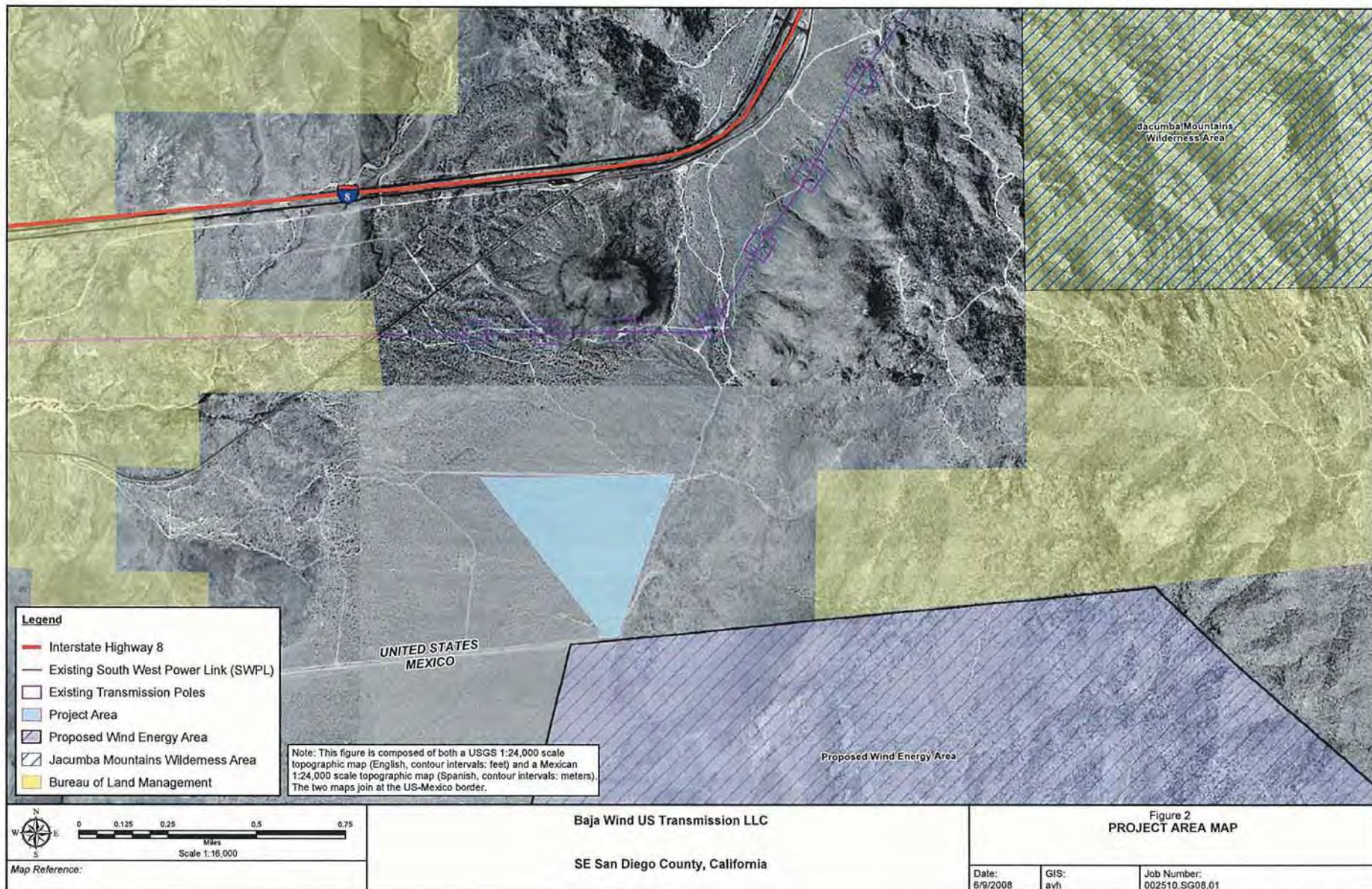






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the survey area to best assess the appropriate survey commencement and duration to maximize the likelihood of observing QCB. In addition, the FWS's "2008 Season Quino Checkerspot Butterfly (*Euphydryas editha quino*) Monitored Reference Site Information" website was frequently monitored to obtain information on 2008 QCB observations and locations. On March 24, the site area conditions were deemed to be acceptable to initiate QCB protocol level surveys.

Please see Table 1 for survey dates, conditions, and personnel. All surveys were conducted by Jim Rocks (Permit# TE-063230-3) and Cynthia Jones Daverin (Permit# TE-811615-4).

The focus of this report is the Baja Wind U.S. transmission line area (87 acres). The 87 acre area was fully surveyed per FWS QCB protocol guidelines. It should be noted that the Baja Wind U.S. project area adjoins a 295 acre site where a transmission substation that will be owned, permitted, constructed, and operated by San Diego Gas and Electric (SDG&E) is proposed. The 295 acre proposed substation area was also surveyed for QCB by Mr. Rocks and Ms. Daverin in 2008. The survey results for that area were negative and a separate 45-day report will be submitted to FWS by Mr. Rocks and Ms. Daverin. Please note that Table 1 and the attached field notes include some time surveying a portion of the substation area, in addition to the 87 acre transmission line area. During each survey, the number of acres surveyed per hour within suitable QCB habitat averaged approximately 10-15 acres per biologist.

<p><b>Table 1. Quino Checkerspot Butterfly Survey Dates/Conditions</b>  <i>Baja Wind Transmission Line Site</i>  <i>Jacumba, San Diego County, CA</i></p>							
Date	3-06-08	3-24-08	3-31-08	4-7-08	4-14-08	4-21-08	4-28-08
Time on site	1050-1350	0945-1615	1000-1600	1000-1500	930-1500	1000-1630	1030-1530
Temp (°F)							
Start-End	59-63	66-78	60-64	64-68	75-85	65-74	81-85
Sky Cover (%) (start-end)	0-0%	0-0%	0-0%	40-0%	0-0%	0-0%	30-10%
Wind Speed (MPH)	1-10	0-3	3-8	4-12	0-8	10-14	5-11
Personnel	JR	JR, CJD	JR, CJD	JR, CJD	JR, CJD	JR, CJD	JR, CJD
Personnel: JR = Jim Rocks; CJD = Cynthia Jones Daverin							

## Results

Survey results were negative for both QCB and larval host plant populations during the 2008 surveys. In general, the survey area supports a relatively low diversity of butterfly



species. Butterfly species detected during the surveys are presented in Table 2 and a list of nectar sources and other plant species observed on the site is presented in Table 3.

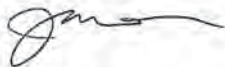
Nectar sources for butterflies were present throughout the site, but the density varied widely with extremely dense patches in some areas and few to no nectar sources in adjacent areas. The primary nectar sources onsite include Common Goldfields, Desert Dandelion, Scale-bud, California butterweed, California Coreopsis, Wild-Heliotrope, and Pincushion.

During the initial surveys (weeks 1-3) the percent cover of nectar sources was very dense, with up to 90% cover in some areas near the southern site boundary. During weeks 4-6, nectar sources in the washes remained viable as other areas declined. Overall, the amount was sharply reduced and conditions for butterfly nectar sources worsened generally across the site.

Please call me at (619) 843-6640 if you have any questions.

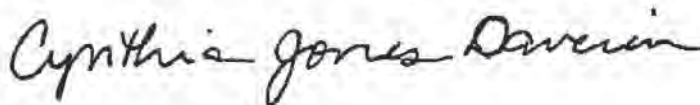
This report represents an accurate account of my work on the survey site.

Sincerely,



Jim Rocks, Principal Biologist  
**Rocks Biological Consulting**  
Permit Number TE-063230-3

This report represents an accurate account of my work on the survey site.



Cynthia Jones Daverin  
**Mariposa Biology**  
Permit Number TE-811615-4



**Table 2. Butterfly Species Detected by Survey Date**

<i>Sempre Baja Wind U.S. Transmission Line Site</i>							
<i>Jacumba, San Diego County, CA</i>							
Species Detected		Survey Date					
Common Name	Scientific Name	3-24-08	3-31-08	4-7-08	4-14-08	4-21-08	4-28-08
Painted Lady	<i>Vanessa cardui</i>	■	■	■	■	■	■
Common White	<i>Pontia protodice</i>	■	■	■	■	■	■
Ceraunus Blue	<i>Hemiargus ceraunus</i>	■					
Sara's Orangetip	<i>Anthocharis sara</i>	■					
Funereal Duskywing	<i>Erynnis funeralis</i>	■	■				
Sulphur	<i>Colias sp.</i>	■	■		■		
Red Admiral	<i>Vanessa atalanta</i>			■			
Chalcedon Checkerspot	<i>Euphydryas chalcedona</i>			■			
Becker's White	<i>Pontia beckeri</i>				■		
Anise Swallowtail	<i>Papilio zelicaon</i>	■			■		■
Black Swallowtail	<i>Papilio polyxenes</i>					■	







**Table 3. Potential QCB Nectar Sources and Other Noted Plants, March-April, 2008**

<b>Sempra Baja Wind U.S. Transmission Line Site</b>	
<b>Floral List (March-April 2008)</b>	
<b>Potential QCB Nectar Sources</b>	<b>Common Name</b>
<i>Amsinckia menziesii</i> var. <i>intermedia</i>	Rancher's Fiddleneck
<i>Amsinckia tessellata</i> var. <i>tessellata</i>	Checker Fiddleneck
<i>Anisocoma acaulis</i>	Scale-Bud
<i>Calochortus splendens</i>	Splendid Mariposa Lily
<i>Chaenactis fremontii</i>	Pincushion
<i>Chaenactis stevioides</i>	Desert Pincushion
<i>Cryptantha intermedia</i>	Nievas Cryptantha
<i>Descurainia pinnata</i>	Tansy-Mustard
<i>Eriogonum thurberi</i>	Thurber's Buckwheat
<i>Eriophyllum wallacei</i>	Wallace's Woolly Daisy
<i>Gilia</i> spp.	Gilia
<i>Guillenia lasiophylla</i>	California Mustard
<i>Lasthenia gracilis</i>	Common Goldfields
<i>Lotus strigosus</i>	Bishop's/Strigose Lotus
<i>Mentzelia affinis</i>	Hydra Stick-Leaf
<i>Pectocarya linearis</i> var. <i>ferocula</i>	Slender Pectocarya
<i>Pectocarya recurvata</i>	Curvenut Combseed
<i>Pectocarya setosa</i>	Bristly Pectocarya
<i>Phacelia distans</i>	Wild-Heliotrope
<i>Pholistoma membranaceum</i>	White Fiesta Flower
<i>Plagiobothrys</i> sp.	Popcornflower
<i>Platystemon californicus</i>	Cream Cups
<i>Salvia columbariae</i>	Chia
<i>Senecio californicus</i>	California Butterweed
<i>Senecio flaccidus</i> var. <i>monoensis</i>	Mono Butterweed
<b>Other Plants Onsite</b>	<b>Common Name</b>
<i>Agave deserti</i>	Desert Agave
<i>Allium fimbriatum</i> var. <i>fimbriatum</i>	Desert Onion
<i>Ambrosia</i> [ <i>Hymenoclea</i> ] <i>salsola</i>	Cheesebush, Burrobrush
<i>Atriplex canescens</i> var. <i>canescens</i>	Four-Wing Saltbush/Shadscale
<i>Bromus rubens</i>	Red Brome
<i>Calyptridium monandrum</i>	Common Calyptridium
<i>Camissonia californica</i>	False-Mustard
<i>Camissonia</i> sp.	Primrose
<i>Cylindropuntia ganderi</i> var. <i>ganderi</i>	Gander's Cholla
<i>Coreopsis californica</i> var. <i>californica</i>	California Coreopsis
<i>Chorizanthe brevicornu</i> var. <i>brevicornu</i>	Brittle Spineflower
<i>Chorizanthe fimbriata</i> var. <i>fimbriata</i>	Fringed Spineflower
<i>Delphinium</i> sp.	Larkspur
<i>Echinocereus engelmannii</i>	Engelmann's Hedgehog Cactus
<i>Emmenanthe penduliflora</i> var. <i>penduliflora</i>	Whispering Bells
<i>Ephedra californica</i>	California Ephedra



<i>Ephedra nevadensis</i>	Nevada Ephedra
<i>Ephedra viridis</i>	Green Ephedra
<i>Eriastrum eremicum</i>	Desert Woolly-Star
<i>Ericameria pinifolia</i>	Pine Goldenbush
<i>Eriogonum fasciculatum</i> var. <i>polifolium</i>	Mountain Buckwheat
<i>Eriogonum gracile</i>	Slender Buckwheat
* <i>Erodium cicutarium</i>	Red-Stem Filaree/Storksbill
<i>Eschscholzia californica</i>	California Poppy
<i>Filago</i> sp.	Filago
<i>Galium</i> sp.	Bedstraw
<i>Larrea tridentata</i>	Creosote Bush
<i>Loeseliastrum schottii</i>	Schott's Calico
<i>Lomatium mohavense</i>	Mohave Lomatium
<i>Lotus scoparius</i> var. <i>brevialatus</i>	Deerweed
<i>Lupinus concinnus</i>	Bajada Lupine
<i>Lycium andersonii</i>	Waterjacket
<i>Malacothrix glabrata</i>	Desert Dandelion
<i>Mirabilis laevis</i>	Wishbone Plant
<i>Nama demissum</i> var. <i>demissum</i>	Purple Mat
<i>Opuntia chlorotica</i>	Pancake Prickly-Pear
<i>Opuntia phaeacantha</i>	Desert Prickly-Pear
<i>Phoradendron californicum</i>	Desert Mistletoe
<i>Prunus fremontii</i>	Desert Apricot
<i>Purshia tridentata</i> var. <i>tridentata</i>	Antelope Bitterbrush
<i>Rhus ovata</i>	Sugar Bush
<i>Ribes quercetorum</i>	Oak Gooseberry
* <i>Schismus barbatus</i>	Arabian Schismus
<i>Sidothea</i> [ <i>Oxythea</i> ] <i>trilobata</i>	Three-Lobe Starry Puncturebract
* <i>Sisymbrium altissimum</i>	Tumble/Jim Hill Mustard
<i>Simmondsia chinensis</i>	Jojoba
<i>Stephanomeria</i> sp.	Wreath-Plant
<i>Stillingia linearifolia</i>	Linear-Leaf Stillingia
<i>Tetradymia canescens</i>	Spineless Horsebrush
<i>Thamnosma montana</i>	Turpentine-Broom
<i>Thysanocarpus curvipes</i>	Lacepod, Fringepod
<i>Yucca schidigera</i>	Mohave Yucca
<i>Ziziphus parryi</i>	Lotebush
* Non-native species	



## Appendix A. Field Notes

3/6/08 Baja Wind Transmission  
Jacumba QCB  
Habitat Assessment

	Time	Temp	Wind	Moist
Start	1050	59	1-7	0%
Stop	1350	63	1-10	0%

	Animals
Ero. Cic (don)	wh. <del>Spa</del> Sp
Sch. Bee (don)	Int d Ldg
	Ladder back
	Wood pecker
	Black tail sp
	Rabbit
	Sim Cl
	Jun Cal
	Cow scat
	Chaenactis sp.
	White
	Plage sp
	Red tail
	Amsinckia sp.
	Lupinus conchius
	Eriogonum (gracile)
	Lar Tri
	Phor Cal
	Atr Can
	Cig Int
	Camissonia sp.
	Pecto (recurvata)
	Lomatium sp.

Echino Eng  
Sarcocolla  
Las Gra (dense in patches)  
Agave des  
Thysanocarpus  
Calyp mon  
Yuc Sch  
Ro Fr  
Gu Les  
Senecio californicus  
Opuntia sp.  
Salvia columbaria  
cf. (Coreopsis californica)  
Fri tas var  
Esch  
Ziz par  
(Lyc and)  
Mirabilis sp  
Des pin

The site has been consistent across the 200<sup>+</sup> acres. Herb cover is moderate w/ many still unident. due to early season. Many nectar sources apparent



[illegible]



3/31/08 / E+E...  
Jacumba QCB #2

w/ Cind, Joes Pavem

	Time	Temp	Wind	sky cov
Start	1000	60°	3-5	0%
Stop	1400	64	6-8	0%

Starting in middle of site

### Plants

Wildfls, still look good  
but starting to fade  
slightly

Mentzelia affinis - ann,  
yellow, blackish, pinky  
darker outer ann -  
shows as exposed to open  
sandy areas

### Animals

Painted Lady (1)  
Common white (1)  
Funereal Fly  
Sulphur sp.  
Black Thr Sparrow  
Sphinx moth -  
resting on yellow  
GTI  
Brewer's Sparrow  
Sooty winged, bill  
Phainopepla  
P. L. O.  
Geoff. Girdle

4/7/08 / E+E Bjo L&W  
Jacumba QCB  
Survey #3

	Time	Temp	Wind	sky cov
Start	1000	64	8-12	40% - 11
Stop	1400	68	4-5	50% - 10

Andrena sakala  
R. G. A.

species  
on north side

### Animals

Red Admiral  
Painted Lady  
Phainopepla  
Sooty G. old  
Brewer's Sparrow  
White G. Warbler  
Chalcedon, Chockergul

Chalcedon, Chockergul  
on mountain slope  
old, used up very dry  
soil

Common white  
on mountain slope

\* N: QCB observed



[illegible][illegible]



Andersonii  
Lycium (calyx tube short  $\ll \frac{1}{2}$  corolla tube)  
Corolla lobes short

Ambrosia Filago (arizonica)  
Sage Gnat  
Chenopodium stenoides  
Lup. Cham. Albo  
Chenopodium fremontii

Most of the Las Grgs in dried and  
in seed. Still some in Fl in  
protected areas

Oxytheca tril  
Lagen gland.  
Scott's Orida

Jim Rocks  
Castanea gracilis - now completely in  
seed w/ a couple of exceptions.

4/28/08 Sempra / E+E  
Jacumba QCB #6  
Time Temp Wind Speed  
Start 1030 81 5-10 30%  
Stop 1530 85 5-11 10%  
- Nectar sources very scarce now

Senecio flaccidus var. monensis  
Mal Gla  
Chae (stev)  
Cryptantha  
Sail Col  
Still in  
Emo Hill  
Phac Dis  
Phac Cal (on 212 Bar)  
Ribes quercetorum  
Ath. Fly  
No Mo  
Phac  
C. m. m.  
P. m. m.  
Ca Qu  
B. H. Sparrow  
Blue-Gray Gnat  
Sage Thrasher  
House Swallow

Geococcyx carolinensis - found offsite to the west  
~ 25 indiv.



March 24, 2008 Cindy Jones  
Daverin

Jacumba - QCB #1

9:45 - 4:15 66°F - 78°F

clear - clear 0-3mph / 0-3mph

Butterflies

Painted lady 50

Painted lady migration

Anise swallowtail 1

White (checkered) 20

Coturnus blue 1

Sara orangetip 1

Sulfur 1

Birds

Brewer's sparrow Black throated green

Phainopepla W. kingbird

N. mockingbird R. hawk

W.c. sparrow

Blooming Plants

Goldfields

Amsinckia

Erodium

Pectocarya (B)

Phacelia

Chicory Coreopsis

Chen. Star (white)

Camissonia

Chia

Daisy

Tanay mustard

Lupine

Prunella

cream cups

Mentzelia

Eriogonum wellacei

Sanicula californica



March 31, 2008 Cindy Jones-Davies  
Jacumba QCB#2

10:00 - 4:00

60°F - 64°F

clear - clear

3-5 mph - 6-8 mph

Butterflies

Painted Lady 100's

Common White III

Funereal dusky orange II

Sulfur I

Painted lady migration

bc sparrow, raven, turkey vulture  
P. Hainopeck, rock wren, mockingbird  
~~Scott's oriole~~, bushy tit  
wc sparrow

Blooming Plants

Goldfields - some drying in areas

Popcorn flower

Camissonia

Pin cushion - white

Lupine

Eriogonum - wallaces

Phacelia distans

Senecio

Coleogyne

Fiddle necks - mostly dried



Jadumba Sempre QCB# 5  
10-3:00 Cindy Jones Darcia  
64°F - 68°F  
Clouds 40%, high, thin  
8-12 mph - 4-5 mph

### Butterflies

Painted lady Hundreds in  
migration

Red admiral 1

Checkered white 1111

Chalcidon checker spot 1  
nectaring in dirt road - photo

Turnip area has limited  
Nectar sources, Butterflies  
drop in number.

### Flowering Plants

Malacothrix  
~~Coronilla~~ - painted leaves - nectar  
Larkspur  
Cryptantha  
Lupinus ~~albus~~  
Phacelia distans - check white nectar  
Erodium  
Chia  
Chaenactis  
Camissonia cal.  
Eriophyllum waltersii  
Anisacoma - checked nectar

Most butterflies obs. in  
South part where Malacothrix  
is in full bloom

### Wildlife

SAOR	BTSP
STOR Wabler	THH
ATEL	COCA
WCSP	NOMO



Jacumba EC B4 4-14-08

9:30 - 3:00

Cindy Jones-Dunbar

75°F - 85°

Clear - clear

Wind 0-1 - 4-8 mph

Butterflies

Checkered White IIII

Painted lady IIII IIII IIII II

Becker's White III

(Orange) sulfur I

Painted lady - migration over

Nectar Sources / Notes

Goldfields - dried mostly

Senecio - mostly dry

White Maenchi <sup>good</sup> (nectar)

Malva <sup>good</sup> (nectar)

Phacelia distans

Lupinus cosentinus

Chic

Mustards

Fiddleneck

Eriophyllum wallacei

Popcorn flowers

Echinocereus

NAME  
CORIA

BTSP  
PHAI

SCOR  
WCSP

TOVA



Jacumba QCB#5 4-21-08  
Cindy Jones-Jaworski

10:00 - 4:30  
Clear - Clear  
65°F - 74°F  
11-14 mph - 8-10

Butterflies

Painted lady H/H/I/I

Black swallowtail 1

Checkered white 1/I

weaver's whiptail  
ATL, Nomo, SCOR, ROLR  
RTAA, BTSP, TUVU, Jackrabbits

Blooming Plants

Onion Allium fimbriatum <sup>var. fimbriatum</sup>  
Filaree  
Goldfields (very dried)  
Chaenactis (blooming)  
Coreopsis (mostly seeding)  
Chia (mostly seed)  
Erigeron annuus  
Senecio cal  
Eriophyllum wallacei  
Eriogonum (small)  
Anisogoma (S. end only)  
Phacelia (S. end only)  
Laysia (white)

The washes in the S. part of site still blooming with Malva, Chaenactis, Chia, Coreopsis



## **Appendix B. 10-day Letter**



# ROCKS BIOLOGICAL CONSULTING

February 27, 2008

Ms. Sandra Marquez  
U.S. Fish and Wildlife Service  
6010 Hidden Valley Road  
Carlsbad, CA 92011

**Subject: 10-day Notification Letter for Quino Checkerspot Butterfly Protocol Surveys**

Ms. Marquez:

This letter is to inform you that I will be conducting a U.S. Fish and Wildlife Service (FWS) protocol Quino Checkerspot Butterfly surveys in Jacumba, CA and Jamul, CA. I have attached maps of both sites for your information and review. Based on the 2006 FWS map, the sites are both located in Survey Area 1.

The Jacumba survey area consists of approximately 230-acres of desert-transition habitat including Pinyon-Juniper, Yuccas, and Cactus. I will be assisted on this survey by Cindy Jones Daverin (Permit # 811615).

The Jamul, CA site consists of approximately 2-acres of dense Chaparral and Coastal Sage Scrub.

Per the protocol, a thorough habitat assessment of both proposed project areas will be conducted for the Quino Checkerspot Butterfly host plants as well as other plants and environmental variables associated with known habitat of the butterfly, such as nectar sources, openings in Coastal Sage Scrub, Grassland and other habitats, and intact soil crusts.

Please contact me at (619) 843-6640 if you have any questions or concerns about this protocol survey.

Sincerely,



Jim Rocks, Principal Biologist  
USFWS Permit No. 063230-3



# ROCKS BIOLOGICAL CONSULTING

May 22, 2009

U.S. Fish and Wildlife Service  
Carlsbad Fish and Wildlife Office  
6010 Hidden Valley Road  
Carlsbad, CA 92009

Attention: Ms. Sandra Marquez

**Permitted Biologists:**

Jim Rocks: TE-063230-3

Cynthia Jones Daverin: TE-811615-4

**Subject:** Year 2009 45-Day Report for Quino Checkerspot Butterfly Surveys at the Proposed Energia Sierra Juarez Gen-Tie Project Site near Jacumba, California

Dear Ms. Marquez:

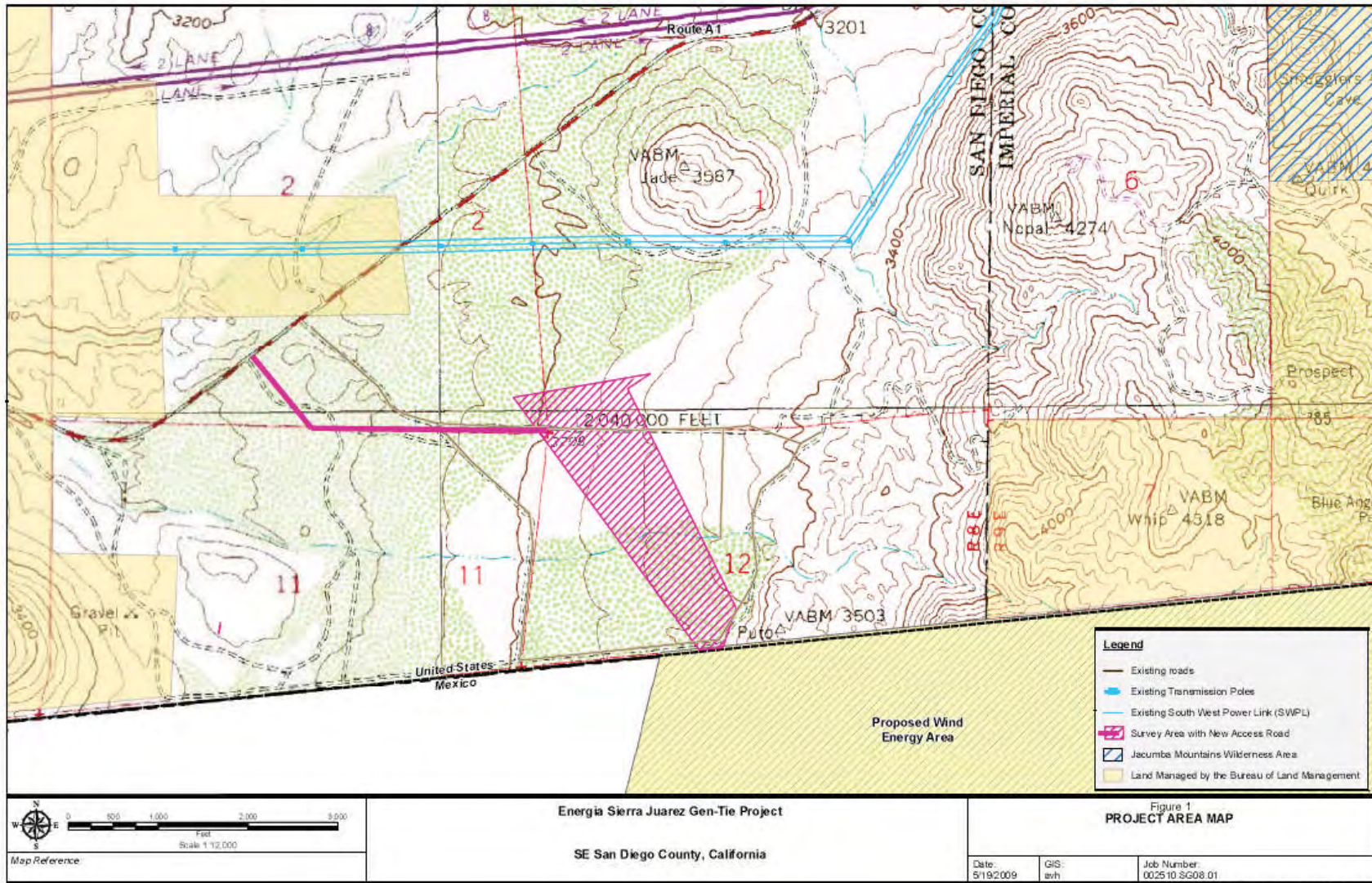
This letter presents the 45-Day Report for Quino Checkerspot Butterfly (*Euphydryas editha quino*, QCB) surveys at the proposed Energia Sierra Juarez Gen-Tie Project site (site), near Jacumba in San Diego County, California. Survey results were negative for both QCB and larval host plant populations during the 2009 surveys. The 2009 survey for QCB is the second survey for this project; the first QCB survey and habitat assessment on the site were conducted in 2008. Surveys in 2008 were negative for both QCB and larval host plants. The 2009 survey was conducted from March 23 to April 22, 2009. Figures showing the survey area boundary and copies of field notes are attached to this report.

**Location**

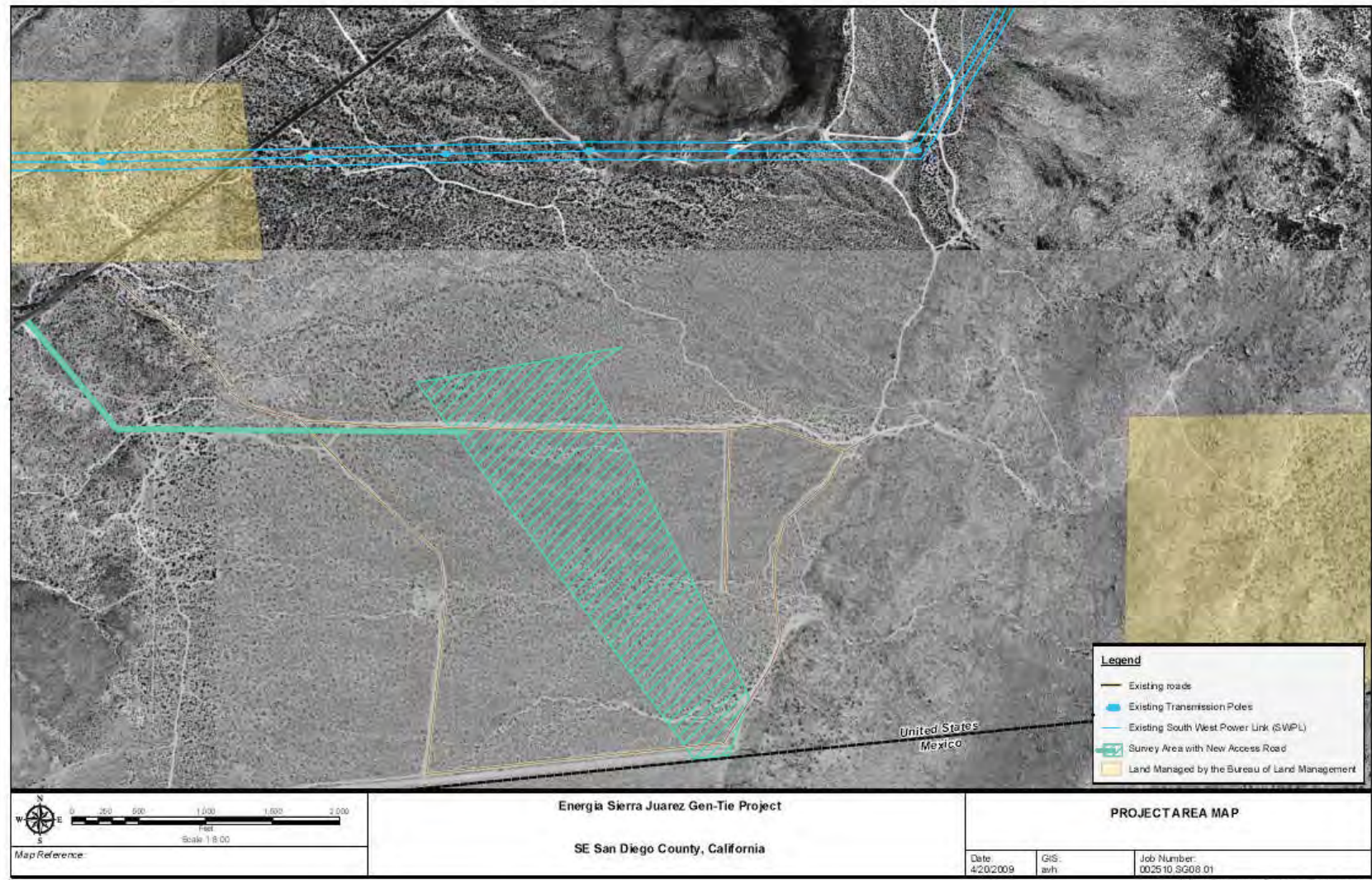
The site is within an approximately 60-acre area located east of the town of Jacumba, California, south of Old Highway 80, and immediately north of the international border. The site is on the U.S. Geological Survey 7.5' Jacumba Quadrangle (see Figure 1). The site is in the U.S. Fish and Wildlife Service (USFWS) recommended Survey Area 1 (2002).

The site is undeveloped, but there are existing dirt roads that are frequently used by the Border Patrol for border surveillance, and there is evidence of trash dumping along the eastern edge of the site. The site is surrounded by relatively undisturbed open space on all sides with Interstate 8 about 0.7 miles to the north and the U.S./Mexico border marking the southern boundary of the project site (Figure 2). The figures included in this report were provided by Ecology and Environment, Inc. and are assumed to be an accurate representation of the limits of the intended survey area.











## Habitat Assessment

The site is relatively flat to gently sloping with deep alluvial granitic soils in most areas. Several ephemeral washes, supporting a relatively high diversity of herbaceous annuals, run west-east across the site. Elevation of the site is approximately 3,100 feet above mean sea level. The site is at the western base of a mountain composed of large granitic outcrops.

The habitat assessment was conducted on March 10, 2009, to assess the phenology of the nectar source plants on and near the site. The vegetation communities, soils, and general conditions on site were assessed for their suitability to support QCB in 2008 and were deemed suitable for surveys according to USFWS guidelines. The vegetation community on site is best classified as Desert Chaparral or Mixed Desert Scrub. Common shrub or perennial species in this habitat include Jojoba (*Simmondsia chinensis*), Waterjacket (*Lycium andersonii*), Lotebush (*Ziziphus parryi* var. *parryi*), Ephedra (*Ephedra* spp.), Gander's Cholla (*Cylindropuntia ganderi* var. *ganderi*), Mohave Yucca (*Yucca schidigera*) and Creosote (*Larrea tridentata*). Annuals present include dense patches of Common Goldfields (*Lasthenia gracilis*), Desert Dandelion (*Malacothrix glabrata*), Scale-bud (*Anisocoma acaulis*), Wild Heliotrope (*Phacelia distans*), California Butterweed (*Senecio californicus*), California Coreopsis (*Coreopsis californica* var. *californica*), and Pincushion (*Chaenactis fremontii*).

Washes, with looser and sandier soils, contained many of the same plant species as the Mixed Desert Scrub. Additional species found in the washes include Cheesebush (*Ambrosia salsola*), Woolly-star (*Eriastrum densifolium* ssp. *elongatum*), Wallace's Woolly Daisy (*Eriophyllum wallacei*), and Schott's Calico (*Loeseliastrum schottii*).

The boulder-covered hills immediately east of the site provide additional plant species important to butterflies such as Yellow Bush Penstemon (*Keckiella antirrhinoides* var. *antirrhinoides*) and Deerweed (*Lotus scoparius* var. *brevialatus*), in addition to most of the Desert Chaparral species.

## Methods

Surveys were performed in accordance with the FWS's "*Quino Checkerspot Butterfly (Euphydryas editha quino) Survey Protocol Information*" dated February 2002. On March 15, 2009, a pre-survey notification letter (the 10-day letter) was sent to the USFWS announcing the intent to conduct surveys for the QCB (Appendix B). One field visit to assess the status of nectar sources was performed, and five protocol level surveys were completed. More detailed information on the field visit and surveys is presented below.

The flight season of QCB is dependent upon adequate rainfall and warm weather to produce supplies of food plants sufficient for allowing QCB larvae to feed, pupate, and emerge during the spring. In 2009, both in the southwestern and eastern portions of the QCB's range, rain fell in winter and early spring causing the germination of annual plants. Most of the annual plants that appeared during early surveys had dried by the final survey.

Following the winter rains, a site check for the presence of conditions that indicate QCB flight season is imminent or has started was conducted on March 10, 2009. These conditions include the presence of certain blooming annuals that could potentially be nectar sources and larval host



plants to support caterpillars. Conditions were not ready for surveys as development of annual plants was not yet sufficient.

The USFWS's "2009 Season Quino Checkerspot Butterfly (*Euphydryas editha quino*) Monitored Reference Site Information" website was frequently monitored to obtain information on 2009 QCB observations and locations. On March 13, the website announced that QCB were observed flying on Jacumba Peak. This initiated the QCB surveys on the site.

Please see Table 1 for survey dates, conditions, and personnel. All surveys were conducted by Jim Rocks (Permit# TE-063230-3) and Cynthia Jones Daverin (Permit# TE-811615-4). Because weather conditions prior to and during the 2009 QCB flight season were regarded as very good across the known range of the species, site surveys were extended to a sixth week. Furthermore, at the end of the fifth survey, the site still supported flowering nectar sources, and other spring butterflies that are commonly present with QCB were still in flight. We think the combination of these two factors warranted conducting a sixth protocol survey.

**Table 1. Quino Checkerspot Butterfly Survey Dates/Conditions**

Date	3-23-09	3-30-09	4-6-09	4-16-09	4-22-09	4-24-09
Time on Site	1545-1715	1415-1630	0900-1115	1100-1300	1345-1615	1430-1630
Temp (°F) Start-End	66-64	63-62	64-67	65-68	85-81	69
Sky Cover (%) (start- end)	0-0%	0-0%	0-0%	0-0%	0-0%	50-60%, thin clouds
Wind Speed (MPH)	1-10	1-10	1-7	1-4	3-12, gusts to 20	4-12
Personnel	JR, CJD	JR, CJD	JR	JR, CJD	JR, CJD	JR
Personnel: JR = Jim Rocks; CJD = Cynthia Jones Daverin						

## Results

Survey results were negative for both QCB and larval host plant populations during the 2009 surveys. In general, the survey area supports a relatively low diversity of butterfly species. Butterfly species detected during the surveys are presented in Table 2, and a list of nectar sources and other plant species observed on the site is presented in Table 3.

Common species observed include Painted Lady (*Vanessa cardui*), Common White (*Pontia protodice*), Sara's Orangetip (*Anthocaris sara*), and Chalcedon Checkerspot (*Euphydryas chalcedona*). Becker's White (*Pontia beckeri*) and Bernardino Dotted-Blue (*Euphilotes bernardino*) appeared during the end of the surveys. The number of butterflies present on site in 2009 exceeded the number present in 2008.

Nectar sources for butterflies were present throughout the site, but the density varied widely with extremely dense patches in some areas and few to no nectar sources in adjacent areas. The



primary nectar sources on site include Common Goldfields, Desert Dandelion, Scale-bud, California butterweed, California Coreopsis, Wild-Heliotrope, and Pincushion. Butterflies were particularly attracted to a variety of nectar sources in a small gully at the base of the rock outcrops adjacent to the international border. Larval food plants for butterflies were more common in the outcrops than on the project site. Various Mustards and Rancher's Fiddleneck (*Amsinckia intermedia* spp. *intermedia*) provided nectar sources in the gully.

During the first survey, few nectar sources were blooming. The greatest numbers of nectar sources were present during the middle surveys. By the final survey, most nectar sources had declined or were senescent, with the exception of wash areas and areas beneath large shrubs. Overall, the number of flowering plants was lower in 2009 than in 2008.

This report represents an accurate account of my work on the survey site.

Sincerely,



Jim Rocks, Principal Biologist  
**Rocks Biological Consulting**  
Permit Number TE-063230-3

This report represents an accurate account of my work on the survey site.



Cynthia Jones Daverin  
**Mariposa Biology**  
Permit Number TE-811615-4



**Table 2. Butterfly Species Detected by Survey Date**

Common Name	Scientific Name	3-23-09	3-30-09	4-6-09	4-16-09	4-22-09	4-24-09
Common White	<i>Pontia protodice</i>	x	x	x	x	x	
Becker's White	<i>Pontia beckeri</i>				x	x	x
Pearly Marble	<i>Euchloe hyantis</i>			x			
Sara Orangetip	<i>Anthocaris sara</i>		x	x	x	x	
Sulphur	<i>Colias sp.</i>				x		
Western Pygmy-blue	<i>Brephidium exile</i>			x	x		
Bernardino blue	<i>Euphilotes battoides bernardino</i>					x	
Chalcedon Checkerspot	<i>Eyphedryas chalcedona</i>	x	x	x	x	x	x
Painted Lady	<i>Vanessa cardui</i>	x	x	x	x		x
Common Buckeye	<i>Junonia coenia</i>		x				
Monarch	<i>Danaus plexippus</i>				x		



**Table 3. Potential QCB Nectar Sources and Other Noted Plants, March-April, 2009**

<b>Potential QCB Nectar Sources</b>	
<b>Scientific Name</b>	<b>Common Name</b>
<i>Amsinckia menziesii</i> var. <i>intermedia</i>	Rancher's Fiddleneck
<i>Amsinckia tessellata</i> var. <i>tessellata</i>	Checker Fiddleneck
<i>Anisocoma acaulis</i>	Scale-Bud
<i>Calochortus splendens</i>	Splendid Mariposa Lily
<i>Camissonia californica</i>	False-Mustard
<i>Camissonia</i> sp.	Primrose
<i>Chaenactis fremontii</i>	Pincushion
<i>Chaenactis stevioides</i>	Desert Pincushion
<i>Coreopsis californica</i> var. <i>californica</i>	California Coreopsis
<i>Cryptantha intermedia</i>	Nieivitas Cryptantha
<i>Descurainia pinnata</i>	Tansy-Mustard
<i>Emmenanthe penduliflora</i> var. <i>penduliflora</i>	Whispering Bells
<i>Eriogonum thurberi</i>	Thurber's Buckwheat
<i>Eriophyllum wallacei</i>	Wallace's Woolly Daisy
<i>Gilia</i> spp.	Gilia
<i>Guillenia lasiophylla</i>	California Mustard
<i>Larrea tridentata</i>	Creosote Bush
<i>Lasthenia gracilis</i>	Common Goldfields
<i>Lotus scoparius</i> var. <i>brevialatus</i>	Deerweed
<i>Lotus strigosus</i>	Bishop's/Strigose Lotus
<i>Lupinus concinnus</i>	Bajada Lupine
<i>Lycium andersonii</i>	Waterjacket
<i>Malacothrix glabrata</i>	Desert Dandelion
<i>Mentzelia affinis</i>	Hydra Stick-Leaf
<i>Pectocarya linearis</i> var. <i>ferocula</i>	Slender Pectocarya
<i>Pectocarya recurvata</i>	Curvenut Combseed
<i>Pectocarya setosa</i>	Bristly Pectocarya
<i>Phacelia distans</i>	Wild-Heliotrope
<i>Pholistoma membranaceum</i>	White Fiesta Flower
<i>Plagiobothrys</i> sp.	Popcornflower
<i>Platystemon californicus</i>	Cream Cups
<i>Prunus fremontii</i>	Desert Apricot
<i>Salvia columbariae</i>	Chia
<i>Senecio californicus</i>	California Butterweed



<b>Potential QCB Nectar Sources</b>	
<b>Scientific Name</b>	<b>Common Name</b>
<i>Senecio flaccidus</i> var. <i>monoensis</i>	Mono Butterweed
* <i>Sisymbrium altissimum</i>	Tumble/Jim Hill Mustard
<i>Thamnosma montana</i>	Turpentine-Broom
<i>Ziziphus parryi</i>	Lotebush
<b>Other Plants on Site</b>	
<b>Scientific Name</b>	<b>Common Name</b>
<i>Agave deserti</i>	Desert Agave
<i>Ambrosia</i> [ <i>Hymenoclea</i> ] <i>salsola</i>	Cheesebush, Burrobrush
<i>Atriplex canescens</i> var. <i>canescens</i>	Four-Wing Saltbush/Shadscale
<i>Bromus rubens</i>	Red Brome
<i>Calyptridium monandrum</i>	Common Calyptridium
<i>Cylindropuntia ganderi</i> var. <i>ganderi</i>	Gander's Cholla
<i>Chorizanthe brevicornu</i> var. <i>brevicornu</i>	Brittle Spineflower
<i>Chorizanthe fimbriata</i> var. <i>fimbriata</i>	Fringed Spineflower
<i>Echinocereus engelmannii</i>	Englemann's Hedgehog Cactus
<i>Ephedra californica</i>	California Ephedra
<i>Ephedra nevadensis</i>	Nevada Ephedra
<i>Ephedra viridis</i>	Green Ephedra
<i>Eriastrum densifolium</i> var. <i>elongatum</i>	Chaparral Woolly-Star
<i>Eriastrum eremicum</i>	Desert Woolly-Star
<i>Ericameria linearifolia</i>	Goldenbush
<i>Eriogonum fasciculatum</i> var. <i>polifolium</i>	Mountain Buckwheat
<i>Eriogonum gracile</i>	Slender Buckwheat
* <i>Erodium cicutarium</i>	Red-Stem Filaree/Storksbill
<i>Eschscholzia californica</i>	California Poppy
<i>Filago gallica</i>	Filago
<i>Galium</i> sp.	Bedstraw
<i>Juniperus californica</i>	California Juniper
<i>Loeseliastrum schottii</i>	Schott's Calico
<i>Lomatium mohavense</i>	Mohave Lomatium
<i>Lycium andersonii</i>	Waterjacket
<i>Mirabilis laevis</i>	Wishbone Plant
<i>Nama demissum</i> var. <i>demissum</i>	Purple Mat
<i>Opuntia phaeacantha</i>	Desert Prickly-Pear
<i>Phoradendron californicum</i>	Desert Mistletoe



<b>Other Plants on Site</b>	
<b>Scientific Name</b>	<b>Common Name</b>
<i>Prunus fremontii</i>	Desert Apricot
<i>Rhus ovata</i>	Sugar Bush
<i>Ribes quercetorum</i>	Oak Gooseberry
* <i>Schismus barbatus</i>	Arabian Schismus
<i>Sidothea</i> [ <i>Oxythea</i> ] <i>trilobata</i>	Three-Lobe Starry Puncturebract
<i>Simmondsia chinensis</i>	Jojoba
<i>Stephanomeria pauciflora</i>	Wreath-Plant
<i>Stillingia linearifolia</i>	Linear-Leaf Stillingia
<i>Thysanocarpus curvipes</i>	Lacepod, Fringepod
<i>Yucca schidigera</i>	Mohave Yucca
<i>Ziziphus parryi</i> var. <i>parryi</i>	Lotebush
* Non-native species	



# Appendix A. Field Notes

3/23/09

Energia Baya-US  
Wind Project

	Time	Temp	WIND	sky
Start	1545	66°	1-7	0%
Stop	1715	64	1-8	0%
w/Cloudy				

Nectar Sources

Pha Dis

Amis Men

Las Gra

Cor Cal

Thamnosia montana

Ero Cic

Lup Con

Lyc And

Butterflies

Chalcedon Check (II)

Pntd Ldy (III)

Common White (III)

3/30/09

E d E

Jacumba QCB #2  
Energia US-Baya

	Time	Temp	WIND	sky
Stat	1415	63	2-10	0%
Stop	1630	62	1-8	0%

Starting at extreme SE portion  
of site in the rocks

Plants

Eric Cuneata

Rham III

Pho Aur. var (Ariz)

Stil Lin

Ment Aff

Core Cal

Ero Fas Pol AtorCan

Ero Cic

Lao Gra

Aga Des

Phac Dist

Amis Acaul

Sch Bar

Pec UnFer

Pro Fire

Jun Cal

Eph spp

Animals

(M1) Pntd Ldy

(II) Chal Check

(I) Corn Buck

(II) Check White

(I) Santa's O-trip

BITI Jack

BI Thr Spar

Phain

Wh Cr Spa

Poa

Amb (salsola)

Tet Com

Ziz Par

Lyc And

Lup Con

Ero Fas Pol

Sim Chi

Chenopods

(white)



# Appendix A. Field Notes

4/6/09 E+E Jacum Ba QCB 3  
US-Baja Energia Project

- only me on survey today

	Time	Temp	Wind	sky
Start	0900	64	1-7 N	0%
Stop	1115	67	1-6 NE	0%

Starting in the approx. middle of the site then walking south

Plants	Animals
Still Lin	Pata Ldy (11)
Ans Aca (Fi)	W Rgm Blue (1)
Mal Gla (Fi)	No Mo
Pha Dist (Fi)	Wh Gr Spar
	Bl Thr Spar
	Chalcedon (11)
	Sara's OTip (11)
	Common White (1)
	Pearly Marble

Protected cover/cyn area named adj to the eastern end of the border fence supports many butterflies - ChalChk, Sara's, Pata Ldy, White. Many nectaring on Ans Men

MODD  
CAQU

4/16/09 E+E QCB 4  
Energia US-Baja Wind

- picked up Andy 1000

	Time	Temp	Wind	sky
Start	1100	65	1-4	0%
Stop	1300	68	1-4	0%

Plants	Animals
Las Gra	Chalcedon Check
Mal Gla	Sulfur
Phac Dist	Sara's OTip (11)
Chae Frem	Phainopepla
Erias Densif	Monarch (moving from air to border fence)
Erio Wall	Becker's White (11)
Atr Can	Co Ra
Tham Mont	Western Pygmy Bld
Loesal schottii	Common White (11)
	No Mo
	Bl Thr Sparrow

Ana



# Appendix A. Field Notes

4/22/09 / E+E  
Encuesta US-Bayer Wild.  
QCB Survey #5

	Time	Temp	Wind	sky/cloud
Start	1345	85	2-10	5%
	1615	81	3-12	50%

Starting at south end of  
corridor near border fence  
where butterfly activity has  
been robust in the past

Plants	Animals
Sis tri (H/RR)	Becker's white (H)
Amis Menz F/R	Chalcedon Check (H)
Phac Dist (F)	Sara's O.Tip (H) & O.T.
Mela Gla (F)	
Cryptanth sp.	
Amis Men Int (F)	
Chae (F/R)	
Lar Tri (F)	
Luge And	

- Small gully/canyon along border  
fence is good butterfly spot  
Keckia, Sis tri, Sis cri, Amis Men  
Note on report  
Vig Par  
Am Cal  
Becker's white (H)  
Common white (H)  
Blue sp.  
Banded Rock lizard

- Overall survey conditions very good  
today until late afternoon winds



## Appendix A. Field Notes

E+E

4/24/09      Anemone - US Boya Wind  
QCB #6

Start	1430	69	4-12	50% thin
Stop	1630	69	8-12	60% thin

Plants	Animals
Ans. Men Int	Becker's White (1)
Sis Ori	Chokedon Check (1)
Kee Ant	Pink Lady (1)
Chae Frie	
Loes Sch	
Mal Gla	

Site now very dry; butterfly activity waning



## Appendix B. 10-Day Notification Letter

March 15, 2009

Ms. Sandra Marquez  
U.S. Fish and Wildlife Service  
6010 Hidden Valley Road  
Carlsbad, CA 92011

**Subject: 10-day Notification Letter for Quino Checkerspot Butterfly Protocol Surveys for San Diego Gas & Electric East County 500/230/60kV Substation Project near Jacumba, CA.**

Ms. Marquez:

This letter is to inform you that I will be conducting a U.S. Fish and Wildlife Service (FWS) protocol Quino Checkerspot Butterfly surveys in Jacumba, CA. The survey area consists of an approximately 250-acre substation site and 13.5 miles of transmission line corridor. I have attached a map of the survey area for your information and review. Based on the 2006 FWS map, the site is located in Survey Area 1.

The survey area consists of suitable habitat including openings in Desert-transition Chaparral, Red-Shank Chaparral, and Chamise Chaparral. I will be assisted by one or more of the following biologists on this survey: Cindy Jones Daverin (Permit # 811615-4), David Faulkner (838743-5), Erik LaCoste (TE-027736-4), and Darin Busby TE-115373-0.

Per the protocol, a thorough habitat assessment of the proposed survey area will be conducted. Host plants as well as other plants and environmental variables associated with known habitat of the butterfly, such as nectar sources, openings in scrub, grassland and other habitats, and intact soil crusts will be documented.

Please contact me at (619) 843-6640 if you have any questions or concerns about this protocol survey.

Sincerely,



Jim Rocks, Principal Biologist  
USFWS Permit No. 063230-3







Appendix C.2 Floral Species Documented on and Adjacent to the ESJ U.S. Transmission  
Line Project Site (excerpt from EDAW, Inc. 2010b)







## APPENDIX C.2

### FLORAL SPECIES DOCUMENTED ON AND ADJACENT TO THE ESJ GEN-TIE PROJECT SITE

Scientific Name	Common Name
<i>Acacia greggii</i>	Catclaw acacia
<i>Agave deserti</i>	Agave
<i>Allium fimbriatum</i> var. <i>fimbriatum</i>	Desert onion
<i>Amsinckia menziesii</i> var. <i>intermedia</i>	Rancher's fiddleneck
<i>Amsinckia tessellata</i>	Checker fiddleneck
<i>Anisocoma acaulis</i>	Scale bud
<i>Atriplex canescens</i>	Four-wing saltbush
<i>Bromus rubens</i> (non-native invasive)	Red brome
<i>Calochortus splendens</i>	Splendid Mariposa lily
<i>Calyptridium monandrum</i>	Common calypatridium
<i>Camissonia californica</i>	False mustard
<i>Camissonia</i> sp.	Primrose
<i>Chaenactis stevioides</i>	Desert pincushion
<i>Chamaesyce albomarginata</i>	Rattlesnake weed
<i>Chorizanthe brevicornu</i>	Brittle spineflower
<i>Chorizanthe fimbriata</i>	Fringed spineflower
<i>Coreopsis californica</i> var. <i>californica</i>	California coreopsis
<i>Cryptantha intermedia</i>	Nievitans cryptantha
<i>Cylindropuntia ganderi</i>	Gander's buckhorn cholla
<i>Delphinium</i> sp.	Larkspur
<i>Descurainia pinnata</i>	Tansy mustard
<i>Dichelostemma capitatum</i>	Blue dicks
<i>Echinocereus engelmannii</i>	Engelmann's hedgehog cactus
<i>Emmenanthe penduliflora</i>	Whispering bells
<i>Ephedra californica</i>	California ephedra
<i>Ephedra nevadensis</i>	Nevada ephedra
<i>Ephedra viridis</i>	Green ephedra
<i>Eriastrum eremicum</i>	Desert woollystar
<i>Ericameria pinifolia</i>	Pinebush
<i>Eriogonum fasciculatum</i> var. <i>polifolium</i>	Mountain buckwheat
<i>Eriogonum gracile</i>	Slender buckwheat
<i>Eriogonum thurberi</i>	Thurber's buckwheat
<i>Eriophyllum wallacei</i>	Wallace's wooly daisy
<i>Erodium cicutarium</i> (non-native)	Filaree
<i>Eschscholzia californica</i>	California poppy
<i>Filago</i> sp.	Filago
<i>Galium</i> sp.	Bedstraw
<i>Gilia</i> spp.	Gilia
<i>Guillenia lasiophylla</i>	California mustard
<i>Hymenoclea salsola</i>	Cheesebush
<i>Juniperous californica</i>	California juniper
<i>Larrea tridentata</i>	Creosote bush
<i>Lasthenia gracilis</i>	Common goldfields
<i>Loeseliastrum schottii</i>	Schott's calico
<i>Logfia depressa</i>	Dwarf cottonrose
<i>Lomatium mohavense</i>	Mohave lomatium
<i>Lotus scoparius</i> var. <i>brevialatus</i>	Deerweed



Scientific Name	Common Name
<i>Lotus strigosus</i>	Strigose lotus
<i>Lupinus concinnus</i>	Bajada lupine
<i>Lycium andersonii</i>	Waterjacket
<i>Malacothrix glabrata</i>	Desert dandelion
<i>Mentzelia affinis</i>	Hydra stick-leaf
<i>Mirabilis laevis</i>	Wishbone
<i>Nama demissum</i> var. <i>demissum</i>	Purple mat
<i>Opuntia chlorotica</i>	Pancake prickly pear
<i>Opuntia phaeacantha</i>	Mojave prickly pear
<i>Pectocarya linearis</i> var. <i>ferocula</i>	Slender pectocarya
<i>Pectocarya recurvata</i>	Curvenut combseed
<i>Pectocarya setosa</i>	Bristly pectocarya
<i>Phacelia distans</i>	Wild heliotrope
<i>Pholistoma membranaceum</i>	White fiesta flower
<i>Phoradendron californicum</i>	Desert mistletoe
<i>Plagiobothrys</i> sp.	Popcorn flower
<i>Platystemon californicus</i>	cream cups
<i>Prunus fremonti</i>	Desert apricot
<i>Purshia tridentata</i>	Antelope bitterbrush
<i>Rafinesquia neomexicana</i>	Desert chicory
<i>Rhus ovata</i>	Sugar bush
<i>Ribes quercetorum</i>	Oak gooseberry
<i>Salvia columbariae</i>	Chia
<i>Schismus barbatus</i>	Arabian schismus
<i>Senecio californicus</i>	California butterweed
<i>Senecio flaccidus</i> var. <i>monoensis</i>	Mono butterweed
<i>Sidothea trilobata</i>	Three-lobed starry puncturebract
<i>Simmondsia chinensis</i>	Jojoba
<i>Sisymbrium altissimum</i> (non-native)	Tumble mustard
<i>Stephanomeria</i> sp.	Wreath plant
<i>Stillingia linearifolia</i>	Linear-leaved stillingia
<i>Stylocline gnaphaloides</i>	Everlasting nest straw
<i>Tetradymia canescens</i>	Spineless horsebrush
<i>Thamnosma montana</i>	Turpentinebroom
<i>Thysanocarpus curvipes</i>	Fringepod
<i>Yucca schidigera</i>	Mojave yucca
<i>Ziziphus parryi</i>	Lotebush



Appendix C.3 Special-status Plant Species Known or Potentially Occurring at the ESJ  
U.S. Transmission Line Project Site (excerpt from EDAW, Inc. 2010b)

|







### APPENDIX C.3

#### SENSITIVE PLANT SPECIES OBSERVED OR POTENTIALLY OCCURRING WITHIN THE PROPOSED ENERGIA SIERRA JUAREZ GEN-TIE PROJECT SITE

Species	State/ Federal Status	CNPS List	County of San Diego	Habitat/Blooming Period	Comments
<i>Astragalus douglasii</i> var. <i>perstrictus</i> Jacumba milk-vetch	—/—	1B	Group A	Chaparral, cismontane woodland, valley and foothill grassland/rocky; blooms Apr-May.	Moderate, though undetected. Not expected to occur, as this species would have been detected during surveys. Furthermore, there is a lack of suitable habitat on-site. A known occurrence occurs within 1-mile of the project site.
<i>Astragalus magdalenae</i> var. <i>peirsonii</i> Peirson's milk-vetch	SE/FT	1B	Group A	Perennial herb; desert dunes; blooms Dec-Apr; elevation 180-820 ft.	Not expected to occur as project site is well out of species known elevation range.
<i>Ayenia compacta</i> Ayenia	—/— 4		Group B	Mojave desert scrub, Sonoran desert scrub/rocky.	Not observed. Not expected to occur, as this species would have been detected during surveys.
<i>Berberis fremontii</i> Fremont barberry	--/--	3	Group C	Chaparral, Joshua tree woodland, piñon and juniper woodland/rocky; blooms Apr-June	Not observed. Not expected to occur, as this species would have been detected during surveys. Furthermore, there is a lack of suitable habitat on-site.
<i>Bursera microphylla</i> Elephant tree	--/--	2	Group B	Deciduous tree; Sonoran Desert scrub (rocky); blooms June-July, elevation 656-2,296 feet.	Moderate potential to occur. Suitable habitat does occur onsite. However, the project site is out of the species' known elevation range.
<i>Calliandra eriophylla</i> Fairyduster	--/--	2	Group B	Sonoran Desert scrub (sandy or rocky); blooms Mar-Apr.	Not observed. Not expected to occur, as this species would have been detected during surveys.
<i>Caulanthus simulans</i> Payson's jewelflower	--/--	4.2	Group D	Annual herb; chaparral, coastal scrub on sandy, granitic substrate; blooms (Feb) Mar-May (June); elevation 295- 7,282 ft.	Low to moderate potential to occur based on habitat preference; CNDDDB search did not show known occurrences within the vicinity of the project.



Species	State/ Federal Status	CNPS List	County of San Diego	Habitat/Blooming Period	Comments
<i>Chamaesyce platysperma</i> Flat-seeded spurge	--/--	1B	Group A	Sonoran Desert (Coachella Valley) on sandy soils; blooms in May	Low potential to occur. There is a known occurrence in Coachella valley, approximately 23 miles away from the project site directly. Widespread in southwest Arizona.
<i>Croton wigginsii</i> Wiggin's croton	--/--	2	n.a.	Sand dunes; blooms Mar-May	Not observed. Not expected to occur, as this species would have been detected during surveys.
<i>Cynanchum utahense</i> Utah vine milkweed	--/--	4.2	Group D	Perennial herb; Mojavean desert scrub, Sonoran desert scrub on sandy or gravelly substrate; blooms Apr-June, elevation 492-4,707 ft.	Moderate potential to occur based on habitat preferences; CNDDDB search did not show known occurrences within the vicinity of the project. Rare plant survey conducted during blooming period in April.
<i>Deinandra floribunda</i> Tecate tarplant	--/--	1B	Group A	Chaparral, coastal scrub; blooms Aug-Oct.	Not expected to occur onsite due to lack of suitable habitat.
<i>Delphinium parishii</i> ssp. <i>subglobosum</i> Colorado Desert larkspur	--/--	4.3	Group D	Perennial herb; Chaparral, cismontane woodland, pinyon and juniper woodland, Sonoran desert scrub; blooms Mar-June; elevation 1,968-5,904 ft.	Moderate potential to occur based on habitat preferences; CNDDDB search did not show known occurrences within the vicinity of the project. Surveys conducted during the peak of the blooming period did not document the species.
<i>Dieteria asteroides</i> var. <i>lagunensis</i> Mount Laguna aster	--/--	2	n.a.	Cismontane woodland, lower montane coniferous forest; blooms Aug-Oct.	Not expected to occur onsite due to lack of suitable habitat.
<i>Eryngium aristulatum</i> ssp. <i>parishii</i> San Diego button-celery	SE/FE	1B	Group A	Annual/perennial herb; coastal scrub, valley and foothill grassland, vernal pools/mesic; blooms Apr-June; elevation 66-2,034 ft.	Not expected to occur onsite due to lack of suitable habitat.
<i>Eucnide rupestris</i> (= <i>Hemizonia conjugens</i> ) Rock nettle	--/--	2	Group B	Sonoran Desert scrub; blooms Dec-Apr.	Not observed. Not expected to occur, as this species would have been detected during surveys.
<i>Geraea viscida</i> Sticky geraea	--/--	2	Group B	Chaparral (often in disturbed areas); blooms May-June.	Not observed. Not expected to occur due to lack of suitable habitat



Species	State/ Federal Status	CNPS List	County of San Diego	Habitat/Blooming Period	Comments
<i>Harpagonella palmeri</i> Palmer's grappling hook	--/--	4.2	Group D	Annual herb; Chaparral, coastal scrub, valley and foothill grassland on clay substrates; blooms Mar-May; elevation 65-3,132 ft.	Low potential to occur based on habitat preferences; CNDDDB search did not show known occurrences within the vicinity of the project.
<i>Helianthus niveus</i> Variegated dudleya	--/E 1B		n.a.	Open sandy places; blooms Sept-May.	Not observed. Not expected to occur, as this species would have been detected during surveys.
<i>Herissantia crispa</i> Curly herissantia	--/--	2	Group B	Annual/perennial herb; Sonoran Desert scrub; blooms Apr (uncommon)/Aug-Sept; elevation 2,296-2,378 ft.	Moderate potential to occur. Suitable habitat does occur onsite. However, the project site is out of the species' known elevation range.
<i>Heuchera brevistaminea</i> Laguna Mountains alumroot	--/-- 1B		Group A	Riparian, chaparral, foothill woodland, mixed evergreen forest; blooms Apr-Jul/Sept. (uncommon).	Not observed. Not expected to occur due to lack of suitable habitat
<i>Hulsea californica</i> San Diego sunflower	--/—	1B	Group A	Openings in yellow pine forest; blooms Apr-Jun.	Not observed. Not expected to occur due to lack of suitable habitat
<i>Hulsea mexicana</i> Mexican hulsea	--/--	2.3	Group B	Annual/perennial herb; chaparral (volcanic, often on burns or disturbed areas); blooms Apr-June; elevation 3,936 ft.	Low potential to occur based on habitat preferences; CNDDDB search did not show known occurrences within the vicinity of the project.
<i>Ipomopsis tenuifolia</i> Slender-leaved ipomopsis	--/--	2	Group B	Chaparral, piñon and juniper woodland, Sonoran Desert scrub/gravelly or rocky soils; blooms Mar-May.	Not observed. Not expected to occur, as this species would have been detected during surveys.
<i>Linanthus bellus</i> Desert beauty	--/--	2	Group B	Chaparral (sandy); blooms Apr-May.	Not observed. Not expected to occur, as this species would have been detected during surveys.
<i>Lotus haydonii</i> Pygmy lotus	--/--	1B	Group A	Piñon and juniper woodland, Sonoran Desert scrub (rocky); blooms Mar-Jun	Not observed. Not expected to occur, as this species would have been detected during surveys.
<i>Lupinus excubitus</i> var. <i>medius</i> Mountain Springs bush lupine	--/—	1B	Group A	Piñon and juniper woodland, Sonoran Desert scrub; blooms Mar-Apr.	Not observed. Not expected to occur, as this species would have been detected during surveys.



Species	State/ Federal Status	CNPS List	County of San Diego	Habitat/Blooming Period	Comments
<i>Mentzelia hirsutissima</i> Hairy stickleaf	--/--	2	Group B	Annual herb; Sonoran Desert scrub (rocky); blooms Apr-May; elevation 0-2,296 ft.	Moderate potential to occur. This species may have been detected during surveys. Suitable habitat does occur onsite. However, the project site is out of the species' known elevation range.
<i>Mentzelia tridentata</i> Creamy blazing star	--/--	1B	n.a.	Mojave Desert scrub/rocky, gravelly, sandy; blooms Apr-May.	Low potential to occur. Marginally suitable habitat does occur onsite.
<i>Mimulus aridus</i> low bush monkeyflower	--/--	4.3	Group D	Evergreen shrub; chaparral; blooms Apr-July; elevation 2,460-3,608 ft.	Low potential to occur based on habitat preferences; CNDDDB search did not show known occurrences within the vicinity of the project.
<i>Nemacaulis denudata</i> var. <i>gracilis</i> Slender woolly-heads	--/--	2	Group B	Dunes; coastal strand, creosote bush scrub; blooms Mar-May.	Not observed. Not expected to occur, as this species would have been detected during surveys. Furthermore, there is a lack of suitable habitat on-site.
<i>Opuntia munzii</i> Munz's cholla	--/--	1B	Group A	Stem succulent; Sonoran Desert, flats, hills, sandy to rocky soils; blooms in May; elevation 492-1,968 ft.	Low potential to occur. Suitable habitat does occur onsite. However, the project site is well out of the species' known elevation range.
<i>Penstemon thurberi</i> Thurber's beardtongue	--/--	4.2	Group D	Perennial herb; chaparral, Joshua tree woodland, pinyon and juniper woodland, Sonoran desert scrub; blooms May-July; elevation 3,936-4002 ft.	Moderate potential to occur based on habitat preferences; CNDDDB search did not show known occurrences within the vicinity of the project. Surveys did not document this perennial herb, or any other <i>Penstemon</i> species onsite.
<i>Rhus trilobata</i> var. <i>simplicifolia</i> Single-leaved skunk bush	--/--	2.3	Group B	Deciduous shrub; pinyon and juniper woodland; blooms Mar-Apr; elevation 4,002-4,494	Low potential to occur. Suitable habitat does occur onsite. However, the project site is slightly out of the species' known elevation range and it was not detected during surveys.
<i>Selaginella eremophila</i> Desert spikemoss	--/--	1B	Group B	Rhizomatous herb; Sonoran Desert scrub (gravelly or rocky); blooms June/May and July (uncommon); elevation 656-2,952 ft.	Moderate potential to occur. Suitable habitat does occur onsite. However, the project site is out of the species' known elevation range.
<i>Senecio aphanactis</i> Chaparral ragwort	--/--	2.2	Group B	Annual herb; chaparral, cismontane woodland; coastal scrub/sometimes alkaline; blooms Jan-Apr; elevation 49-2,624 ft.	Not expected to occur. Marginal habitat onsite, project is slightly out of the species' known elevation range.



Species	State/ Federal Status	CNPS List	County of San Diego	Habitat/Blooming Period	Comments
<i>Senna covesii</i> Cove's cassia	--/--	2.2	Group B	Perennial herb; Sonoran desert scrub; blooms Mar-June; elevation 1,000-3,510	Moderate potential to occur based on habitat preference; CNDDDB search did not show known occurrences within the vicinity of the project.
<i>Tetrococcus dioicus</i> Parry's tetrococcus	--/--	1B	Group A	Chaparral, coastal scrub; blooms Apr-May	Not observed. Not expected to occur due to lack of suitable habitat
<i>Texosporium sancti-jacobi</i> woven-spored lichen	ST/--	n.a.	n.a.	Lichen; organic matter and organic soil in sagebrush, old fenceposts, or other wood	Moderate potential to occur.

#### STATUS CODES

##### State/Federal Status

FE = Federally listed endangered  
 FT = Federally listed threatened  
 SE = State listed endangered  
 ST = State listed threatened  
 SR = State listed rare

##### County of San Diego Status

Group A = Plants rare, threatened, or endangered in California and elsewhere.  
 Group B = Plants rare, threatened, or endangered in California but more common elsewhere.  
 Group C = Plants which may be quite rare, but need more information to determine true rarity status.  
 Group D = Plants limited in distribution and uncommon but not presently rare or endangered.

##### California Native Plant Society Status

1A = Species presumed extinct.  
 1B = Species rare, threatened, or endangered in California and elsewhere. These species are eligible for state listing.  
 2 = Species rare, threatened, or endangered in California but more common elsewhere. These species are eligible for state listing.  
 3 = Species for which more information is needed. Distribution, endangerment, and/or taxonomic information is needed.  
 4 = A watch list of species of limited distribution. These species need to be monitored for changes in the status of their populations.







Appendix C.4 Wildlife Species Observed/Detected on the ESJ U.S. Transmission Line  
Project Site (excerpt from EDAW, Inc. 2010b)







## APPENDIX C.4

### WILDLIFE SPECIES OBSERVED/DETECTED ON THE ESJ GEN-TIE PROJECT SITE

Common Name	Scientific Name	Identification Method	Notes
<b>Mammals</b>			
White-tailed antelope ground squirrel	<i>Ammospermophilus leucurus</i>	sightings	
Coyote	<i>Canis latrans</i>	tracks, probable burrows	
Bobcat (unconfirmed)	<i>Felis rufus</i>	possible tracks	
Black-tailed jack rabbit	<i>Lepus californicus</i>	sightings	
Unidentified small rodent		tracks, burrows	
Medium-size animal burrow		~1' diameter burrows	
<b>Birds</b>			
Black-throated sparrow	<i>Amphispiza bilineata</i>	sightings	perched
Western scrub jay	<i>Aphelocoma californica</i>	sightings	perched
Red-tailed hawk	<i>Buteo jamaicensis</i>	sighting	Briefly soaring over sight
Common ravens	<i>Corvus corax</i>	sighting	Two flying over the site
Horned lark	<i>Eremophila alpestris</i>	audio and visual	
Northern mockingbird	<i>Mimus polyglottos</i>	sighting	perched
Ash-throated flycatcher	<i>Myiarchus cinerascens</i>	sighting	perched
Scott's oriole	<i>Icterus parisorum</i>	sightings	perched
Ladder-backed woodpecker (unconfirmed)	<i>Picoides scalaris</i>	possible sighting	Foraging on agave flower stalks
Western kingbird	<i>Tyrannus verticalis</i>	sighting	perched
White-crowned sparrow	<i>Zonotrichia leucophrys</i>	sighting	perched
Unidentified inactive bird nests		sightings	~5-inch diameter, cup-like, in <i>Lycium/Ziziphus</i>
<b>Reptiles</b>			
Tiger Whiptail	<i>Aspidoscelis tigris</i>	sighting	
Unidentified lizard		sightings	Small (3 to 5 inches)
<b>Butterflies</b>			
painted lady	<i>Vanessa cardui</i>	sightings	QCB survey
common white	<i>Pontia protodice</i>	sightings	QCB survey
Ceraunus blue	<i>Hemiargus ceraunus</i>	sighting	QCB survey
Sara's orangetip	<i>Anthocharis sara</i>	sighting	QCB survey
funereal duskywing	<i>Erynnis funeralis</i>	sightings	QCB survey
sulphur	<i>Colias</i> sp.	sightings	QCB survey
red Admiral	<i>Vanessa atalanta</i>	sighting	QCB survey
Chalcedon checkerspot	<i>Euphydryas chalcedona</i>	sighting	QCB survey
Becker's white	<i>Pontia beckeri</i>	sighting	QCB survey
anise swallowtail	<i>Papilio zelicaon</i>	sightings	QCB survey
black swallowtail	<i>Papilio polyxenes</i>	sighting	QCB survey







Appendix C.5 Special-status Wildlife Species Known or Potentially Occurring at the ESJ  
U.S. Transmission Line Project Site (excerpt from EDAW, Inc. 2010b)







**APPENDIX C.5**  
**SENSITIVE WILDLIFE SPECIES OBSERVED OR POTENTIALLY OCCURRING WITHIN THE**  
**PROPOSED ENERGIA SIERRA JUAREZ GEN-TIE PROJECT SITE**

Scientific Name	Common Name	Federal Status	State Status	BLM	County of San Diego	Habitat	Potential to Occur Onsite
<b>Birds</b>							
<i>Accipiter cooperii</i>	Cooper's hawk	--	SSC		Group 1	Forests and open woodland habitats	Low (foraging); not expected to nest, due to lack of habitat.
<i>Aquila chrysaetos canadensis</i>	Golden eagle	BEGEPA	CFP		Group 1	Requires vast foraging areas in grasslands, broken chaparral or sage scrub. Secluded cliffs with overhanging ledges and large trees for nesting and cover.	Low (foraging); not expected to nest, due to lack of habitat.
<i>Agelaius tricolor</i>	Tricolored blackbird	--	SSC	BLM Sensitive	Group 1	Dairies and ripening grain heads, rice districts, cattail marshes	Not expected due to lack of habitat.
<i>Athene cunicularia</i>	Western burrowing owl	--	SSC	BLM Sensitive	Group 1	Deserts with burrowing animals	Low.
<i>Cathartes aura meridionalis</i>	Turkey vulture	--			Group 1	Open stages of habitats that provide cliffs and large trees.	Not expected due to lack of habitat.
<i>Circus cyaneus</i>	Northern harrier (nesting)	--	SSC		Group 1	Coastal lowland, marshes grassland, agricultural fields	Low (foraging); not expected to nest, due to lack of habitat.



Scientific Name	Common Name	Federal Status	State Status	BLM	County of San Diego	Habitat	Potential to Occur Onsite
<i>Eremophila alpestris actia</i>	California horned lark	--	SSC		Group 2	Sandy shores, mesas, disturbed areas, grasslands, agricultural lands, sparse creosote bush scrub	Observed
<i>Falco mexicanus</i>	Prairie falcon	--	SSC		Group 1	Open country	Moderate (foraging); not expected to nest, due to lack of habitat.
<i>Falco peregrinus anatum</i>	American peregrine falcon	D	E		Group 1	Open country, especially along rivers; also near lakes, along coasts, and in cities	Low (foraging); not expected to nest, due to lack of habitat.
<i>Lanius ludovicianus</i>	Loggerhead shrike	--	SSC		Group 1	Open foraging areas near scattered bushes and low trees	High
<i>Parabuteo unicinctus</i>	Harris' hawk	--	SSC			River woods, mesquite, brush, cactus deserts	Low (foraging); not expected to nest, due to lack of habitat.
<i>Piranga rubra</i>	Summer tanager		SSC		Group 2	Desert riparian habitat dominated by cottonwood and willow.	Not expected due to lack of habitat.
<i>Toxostoma crissale</i>	Crissal thrasher	--	SSC		Group 1	Dense thickets of shrubs or low trees in desert riparian and desert wash habitats	Low due to lack of habitat.
<i>Toxostoma lecontei lecontei</i>	Leconte's thrasher	--		BLM Sensitive	Group 2	Desert scrub habitats; prefers breeding in saltbush/shadscale vegetation or cholla cacti in sandy substrate.	Moderate



Scientific Name	Common Name	Federal Status	State Status	BLM	County of San Diego	Habitat	Potential to Occur Onsite
<i>Vireo bellii pusillus</i>	Least Bell's vireo	E	E		Group 1	Riparian	Not expected due to lack of habitat.
<i>Vireo vicinior</i>	Gray vireo	--	SSC	BLM Sensitive	Group 1	Hot, semi-arid, shrubby habitats, especially mesquite and brushy pinyon-juniper woodlands; also chaparral, desert scrub. Thorn scrub, oak-juniper woodland, pinyon-juniper, juniper-cholla, mesquite, dry chaparral. Nests in mature, closed vegetation. Dependent upon elephant tree in the winter.	Low



Scientific Name	Common Name	Federal Status	State Status	BLM	County of San Diego	Habitat	Potential to Occur Onsite
<b>Reptiles</b>							
<i>Coleonyx switaki</i>	Barefoot banded gecko	--	T		Group 2	Arroyos and rocky hillsides, especially near large boulders or rocky outcrops	Not expected due to lack of habitat.
<i>Phrynosoma mcalli</i>	Flat-tailed horned lizard	--	SSC	BLM Sensitive	Group 1	Dunes and sandy flats of low desert	Not expected due to lack of habitat.
<i>Salvadora hexalepis virgultea</i>	Coast patch-nosed snake	--	SSC		Group 2	Grasslands, chaparral, sagebrush, desert scrub in sandy and rocky areas	Low
<i>Crotalus ruber ruber</i>	Red diamond rattlesnake	--	SSC		Group 2	Desert scrub and riparian, coastal sage scrub, open chaparral, grassland, and agricultural fields	High
<i>Phrynosoma coronatum blainvillei</i>	San Diego horned lizard	---	SSC		Group 2	Coastal sage, annual grassland, chaparral, oak woodland, riparian woodland, and coniferous forest; loose, fine soils with a high sand fraction, an abundance of native ants or other insects, and open areas with limited overstory for basking and low but relatively dense shrubs for refuge	Low
<i>Uma notata notata</i>	Colorado Desert fringe-toed lizard	--	SSC	BLM Sensitive	Group 1	Desert dunes, flats, riverbanks, and washes with loose sand and scant vegetation	Not expected due to lack of habitat.



Scientific Name	Common Name	Federal Status	State Status	BLM	County of San Diego	Habitat	Potential to Occur Onsite
<b>Mammals</b>							
<i>Chaetodipus californicus femoralis</i>	Dulzura California pocket mouse	--	SSC		Group 2	Chaparral, desert grassland.	Low
<i>Corynorhinus townsendii pallescens</i>	Townsend's big-eared bat	--	SSC	BLM Sensitive	Group 2	Caves, mines, buildings. Variety of habitats, arid to mesic. Individual or colonial. Sensitive to disturbance.	Not expected due to lack of habitat.
<i>Eumops perotis californicus</i>	Great western mastiff bat	--	SSC	BLM Sensitive	Group 2	Woodlands, rocky habitat, arid and semiarid lowlands, cliffs, crevices, buildings, tree hollows.	Low
<i>Felis concolor</i>	Mountain lion	--	CFP		Group 2	Many habitats, wherever deer are found.	Low
<i>Lasiurus blossevillii</i>	Western red bat	--	SSC		Group 2	Forests and woodlands from sea level up through mixed conifer woodlands. Not found in desert areas.	Not expected due to lack of habitat.
<i>Myotis ciliolabrum</i>	Small-footed myotis	--		BLM Sensitive	Group 2	Arid wooded and brushy uplands near water.	Low
<i>Nyctinomops macrotis</i>	Big free-tailed bat	--	SSC		Group 2	Prefers rugged rocky canyons. Buildings, caves, holes in trees.	Not expected due to lack of habitat.
<i>Ovis canadensis cremnobates</i>	peninsular bighorn sheep	E	T		Group 1	Dry, rocky, low-elevation desert slopes	Low, per discussions with USFWS.



Scientific Name	Common Name	Federal Status	State Status	BLM	County of San Diego	Habitat	Potential to Occur Onsite
<i>Onychomys torridus ramona</i>	southern grasshopper mouse	--	SSC		Group 2	Alkali desert scrub and desert scrub preferred; also succulent scrub, wash, and riparian areas; coastal sage scrub, mixed chaparral, sagebrush, low sage, and bitterbrush; low to moderate shrub cover preferred	Moderate
<i>Neotoma lepida intermedia</i>	San Diego desert woodrat	--	SSC		Group 2	Coastal sage scrub, chaparral, most desert habitats	Moderate; no woodrat middens documented onsite
<i>Perognathus longimembris internationalis</i>	Jacumba little pocket mouse	--	SSC		Group 2	Desert scrub and grasslands on loosely packed or sandy soils with sparse to moderately dense vegetation.	Low
<i>Lepus californicus bennettii</i>	San Diego black-tailed jackrabbit	--	SSC		Group 2	Semi-open scrub habitats throughout southern California	Observed
<i>Taxidea taxus</i>	American badger	--	SSC		Group 2	Grasslands, Sonoran Desert scrub	Moderate
<i>Macrotus californicus</i>	California leaf-nosed bat	--	SSC	BLM Sensitive	Group 2	Low deserts, caves, mines, buildings.	Moderate foraging, no roosting
<i>Antrozous pallidus</i>	Pallid bat	--	SSC	BLM Sensitive	Group 2	Arid deserts and grasslands; shallow caves, crevices, rock outcrops, buildings, tree cavities, esp. near water	Moderate foraging, no roosting



Scientific Name	Common Name	Federal Status	State Status	BLM	County of San Diego	Habitat	Potential to Occur Onsite
<i>Euderma maculatum</i>	Spotted bat	--	SSC	BLM Sensitive	Group 2	Wide variety of habitats: caves crevices, trees; prefers sites with adequate roosting sites	Low
<i>Corynorhinus townsendii pallescens</i>	Pale big-eared bat	--	SSC	BLM Sensitive	Group 2	Caves, mines, buildings; variety of habitats, arid and mesic	Low
<i>Nyctinomops femorosaccus</i>	Pocketed free-tailed bat	--	SSC		Group 2	Crevices in rocks, slopes, cliffs; lower elevations	Moderate foraging, no roosting
<i>Chaetodipus fallax pallidus</i>	pallid San Diego pocket mouse	--	SSC		Group 2	Chaparral, open, sandy areas	Low
<b>Invertebrates</b>							
<i>Euphydryas editha quino</i>	Quino checkerspot butterfly	E	--		Group 1	Coastal sage scrub	Moderate

Status Codes:

State/Federal Status

BEGEPA = protected under the federal Bald Eagle and Golden Eagle Protection Act.

BLM Sensitive = species that may require federal T/E listing, or with small and widely dispersed populations, or inhabiting ecological refugia or unique habitats.

CFP = California Fully Protected species.

D = Delisted.

E = Endangered.

SSC = California Species of Special Concern.

T = Threatened.

County of San Diego Status

Group I = animal species that are listed as threatened or endangered or have very specific natural history requirements that must be met.

Group II = animal species that are becoming less common, but are not yet so rare that extirpation or extinction is imminent without immediate action.





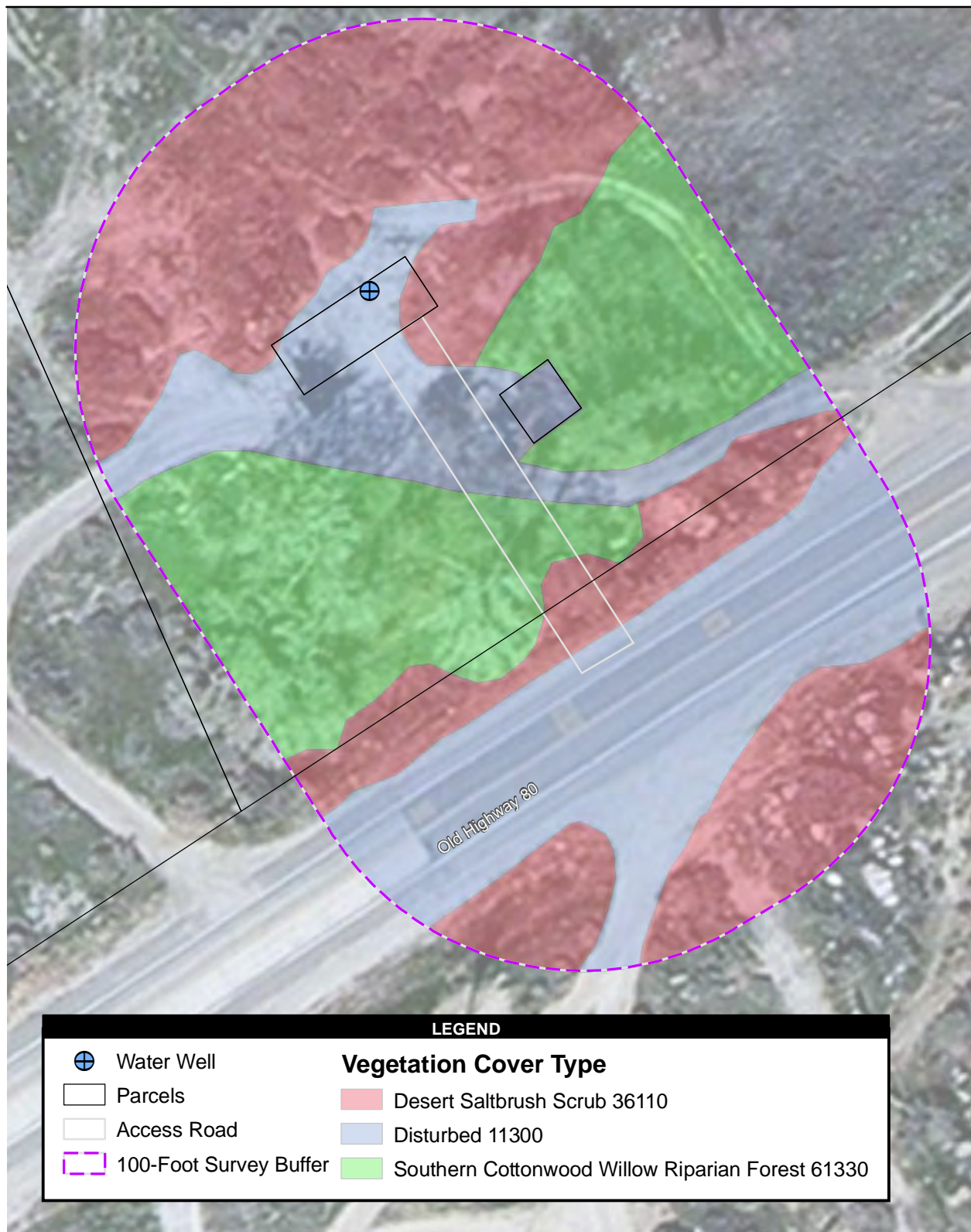


Appendix C.6 Special-status Wildlife Species Known or Potentially Occurring at the ESJ  
U.S. Transmission Line Project Groundwater Well Access Road (excerpt  
from AECOM 2011a.)

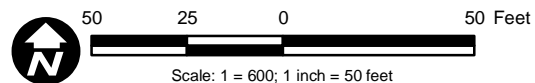








Source: Sempra 2010; SANGIS 2010; DigitalGlobe 2008

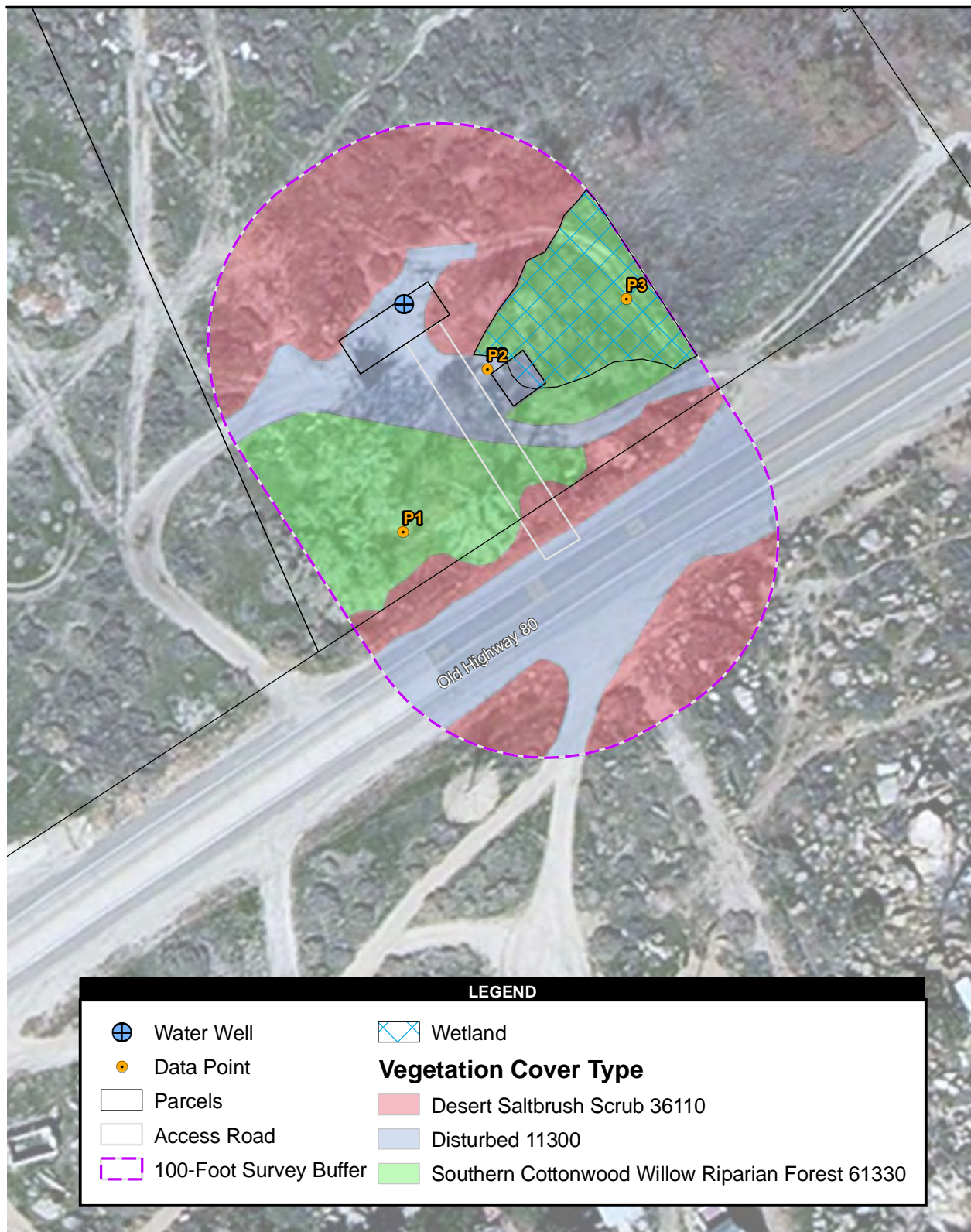


**Figure 3**  
**Existing Vegetation and Project Overlay**

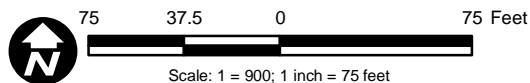
ESJ Well Driveway Project Number 09-0107420

Path: P:\2009\09080001 ESJ Gen-Tie\6.0 GIS\6.3 Layout\Bio\Well\_Bio\Fig3\_Existing\_Veg.mxd, 02/02/11, Sorensen.J





Source: Sempra 2010; SANGIS 2010; DigitalGlobe 2008



**Figure 4**  
**Potential Jurisdictional Areas**

ESJ Well Driveway Project Number 09-0107420

Path: P:\2009\09080001 ESJ Gen-Tie\6.0 GIS\6.3 Layout\Bio\Well\_Bio\Fig4\_Potential\_Jurisdiction.mxd, 02/03/11, Sorensen.J



## APPENDIX A

### FLORAL SPECIES DOCUMENTED ON AND ADJACENT TO THE PROJECT SITE

Scientific Name	Common Name
<i>Amsinckia menziesii</i> var. <i>intermedia</i>	Rancher's fiddleneck
<i>Artemisia dracunculus</i>	Mugwort
<i>Atriplex canescens</i>	Four-wing saltbush
<i>Avena</i> sp. (non-native)	Wild oats
<i>Baccharis salicifolia</i>	Mule fat
<i>Brassica</i> sp.	Mustard
<i>Bromus madritensis</i>	Brome
<i>Bromus rubens</i> (nonnative invasive)	Red brome
<i>Cirsium vulgare</i>	Thistle
<i>Conyza canadensis</i>	Horsetail
<i>Corethrogyne filaginifolia</i>	Sand aster
<i>Eriastrum densiflorum</i>	Woollystar
<i>Erodium cicutarium</i> (nonnative)	Filaree
<i>Isocoma menziesii</i>	Goldenbush
<i>Oxalis latifolia</i>	Wood sorrel
<i>Phoradendron californicum</i>	Desert mistletoe
<i>Populus fremonti</i>	Cottonwood
<i>Salix</i> sp.	Willow
<i>Sisymbrium irio</i> (nonnative)	London rocket
<i>Solidago confinis</i>	Goldenrod
<i>Tamarix</i> sp.	Tamarisk



## APPENDIX B

### SENSITIVE WILDLIFE SPECIES OBSERVED OR POTENTIALLY OCCURRING WITHIN THE PROJECT SITE

Scientific Name	Common Name	Federal Status	State Status	BLM	County of San Diego	Habitat	Potential to Occur On-site
<b>Birds</b>							
<i>Accipiter cooperii</i>	Cooper's hawk	--	SSC		Group 1	Forests and open woodland habitats	Low (foraging); no nests detected.
<i>Aquila chrysaetos canadensis</i>	Golden eagle	BEGEPA	CFP		Group 1	Requires vast foraging areas in grasslands, broken chaparral or sage scrub. Secluded cliffs with overhanging ledges and large trees for nesting and cover.	Low (foraging); not expected to nest, due to lack of habitat.
<i>Agelaius tricolor</i>	Tricolored blackbird	--	SSC	BLM Sensitive	Group 1	Dairies and ripening grain heads, rice districts, cattail marshes	Moderate.
<i>Athene cunicularia</i>	Western burrowing owl	--	SSC	BLM Sensitive	Group 1	Deserts with burrowing animals	Low, habitat not appropriate.
<i>Cathartes aura meridionalis</i>	Turkey vulture	--			Group 1	Open stages of habitats that provide cliffs and large trees.	Not expected due to lack of habitat.
<i>Circus cyaneus</i>	Northern harrier (nesting)	--	SSC		Group 1	Coastal lowland, marshes grassland, agricultural fields	Low (foraging); not expected to nest, due to lack of habitat.
<i>Eremophila alpestris actia</i>	California horned lark	--	SSC		Group 2	Sandy shores, mesas, disturbed areas, grasslands, agricultural lands, sparse creosote bush scrub	Low, habitat is of marginal quality.
<i>Falco mexicanus</i>	Prairie falcon	--	SSC		Group 1	Open country	Low (foraging); not expected to nest, due to lack of habitat.
<i>Falco peregrinus anatum</i>	American peregrine falcon	D	E		Group 1	Open country, especially along rivers; also near lakes, along coasts, and in cities	Low (foraging); not expected to nest, due to lack of habitat.
<i>Lanius ludovicianus</i>	Loggerhead shrike	--	SSC		Group 1	Open foraging areas near scattered bushes and low trees	Moderate, not observed during surveys.



Scientific Name	Common Name	Federal Status	State Status	BLM	County of San Diego	Habitat	Potential to Occur On-site
<i>Parabuteo unicinctus</i>	Harris' hawk	--	SSC			River woods, mesquite, brush, cactus deserts	Low (foraging); not expected to nest, due to lack of habitat.
<i>Piranga rubra</i>	Summer tanager		SSC		Group 2	Desert riparian habitat dominated by cottonwood and willow.	Moderate, not observed.
<i>Toxostoma crissale</i>	Crissal thrasher	--	SSC		Group 1	Dense thickets of shrubs or low trees in desert riparian and desert wash habitats	Moderate, not observed.
<i>Toxostoma lecontei lecontei</i>	Leconte's thrasher	--		BLM Sensitive	Group 2	Desert scrub habitats; prefers breeding in saltbush/shadscale vegetation or cholla cacti in sandy substrate.	Moderate
<i>Vireo bellii pusillus</i>	Least Bell's vireo	E	E		Group 1	Riparian	Low, habitat is marginal.
<i>Vireo vicinior</i>	Gray vireo	--	SSC	BLM Sensitive	Group 1	Hot, semi-arid, shrubby habitats, especially mesquite and brushy pinyon-juniper woodlands; also chaparral, desert scrub. Thorn scrub, oak-juniper woodland, pinyon-juniper, juniper-cholla, mesquite, dry chaparral. Nests in mature, closed vegetation. Dependent upon elephant tree in the winter.	Low
<b>Reptiles</b>							
<i>Coleonyx switaki</i>	Barefoot banded gecko	--	T		Group 2	Arroyos and rocky hillsides, especially near large boulders or rocky outcrops	Not expected due to lack of habitat.
<i>Phrynosoma mcalli</i>	Flat-tailed horned lizard	--	SSC	BLM Sensitive	Group 1	Dunes and sandy flats of low desert	Not expected due to lack of habitat.
<i>Salvadora hexalepis virgultea</i>	Coast patch-nosed snake	--	SSC		Group 2	Grasslands, chaparral, sagebrush, desert scrub in sandy and rocky areas	Low



Scientific Name	Common Name	Federal Status	State Status	BLM	County of San Diego	Habitat	Potential to Occur On-site
<i>Crotalus ruber ruber</i>	Red diamond rattlesnake	--	SSC		Group 2	Desert scrub and riparian, coastal sage scrub, open chaparral, grassland, and agricultural fields	High
<i>Phrynosoma coronatum blainvillei</i>	San Diego horned lizard	---	SSC		Group 2	Coastal sage, annual grassland, chaparral, oak woodland, riparian woodland, and coniferous forest; loose, fine soils with a high sand fraction, an abundance of native ants or other insects, and open areas with limited overstory for basking and low but relatively dense shrubs for refuge	Moderate
<i>Uma notata notata</i>	Colorado Desert fringe-toed lizard	--	SSC	BLM Sensitive	Group 1	Desert dunes, flats, riverbanks, and washes with loose sand and scant vegetation	Not expected due to lack of habitat.
<b>Mammals</b>							
<i>Chaetodipus californicus femoralis</i>	Dulzura California pocket mouse	--	SSC		Group 2	Chaparral, desert grassland.	Low
<i>Corynorhinus townsendii pallescens</i>	Townsend's big-eared bat	--	SSC	BLM Sensitive	Group 2	Caves, mines, buildings. Variety of habitats, arid to mesic. Individual or colonial. Sensitive to disturbance.	Not expected due to lack of habitat.
<i>Eumops perotis californicus</i>	Great western mastiff bat	--	SSC	BLM Sensitive	Group 2	Woodlands, rocky habitat, arid and semiarid lowlands, cliffs, crevices, buildings, tree hollows.	Low
<i>Felis concolor</i>	Mountain lion	--	CFP		Group 2	Many habitats, wherever deer are found.	Low
<i>Lasiurus blossevillii</i>	Western red bat	--	SSC		Group 2	Forests and woodlands from sea level up through mixed conifer woodlands. Not found in desert areas.	Not expected due to lack of habitat.
<i>Myotis ciliolabrum</i>	Small-footed myotis	--		BLM Sensitive	Group 2	Arid wooded and brushy uplands near water.	Low
<i>Nyctinomops macrotis</i>	Big free-tailed bat	--	SSC		Group 2	Prefers rugged rocky canyons. Buildings, caves, holes in trees.	Not expected due to lack of habitat.



Scientific Name	Common Name	Federal Status	State Status	BLM	County of San Diego	Habitat	Potential to Occur On-site
<i>Ovis canadensis cremnobates</i>	peninsular bighorn sheep	E	T		Group 1	Dry, rocky, low-elevation desert slopes	Low, per discussions with USFWS.
<i>Onychomys torridus ramona</i>	southern grasshopper mouse	--	SSC		Group 2	Alkali desert scrub and desert scrub preferred; also succulent scrub, wash, and riparian areas; coastal sage scrub, mixed chaparral, sagebrush, low sage, and bitterbrush; low to moderate shrub cover preferred	Moderate
<i>Neotoma lepida intermedia</i>	San Diego desert woodrat	--	SSC		Group 2	Coastal sage scrub, chaparral, most desert habitats	Moderate; no woodrat middens documented on-site
<i>Perognathus longimembris internationalis</i>	Jacumba little pocket mouse	--	SSC		Group 2	Desert scrub and grasslands on loosely packed or sandy soils with sparse to moderately dense vegetation.	Low
<i>Lepus californicus bennettii</i>	San Diego black-tailed jackrabbit	--	SSC		Group 2	Semi-open scrub habitats throughout southern California	High
<i>Taxidea taxus</i>	American badger	--	SSC		Group 2	Grasslands, Sonoran Desert scrub	Moderate
<i>Macrotus californicus</i>	California leaf-nosed bat	--	SSC	BLM Sensitive	Group 2	Low deserts, caves, mines, buildings.	Moderate foraging, no roosting
<i>Antrozous pallidus</i>	Pallid bat	--	SSC	BLM Sensitive	Group 2	Arid deserts and grasslands; shallow caves, crevices, rock outcrops, buildings, tree cavities, esp. near water	Moderate foraging, no roosting
<i>Euderma maculatum</i>	Spotted bat	--	SSC	BLM Sensitive	Group 2	Wide variety of habitats: caves crevices, trees; prefers sites with adequate roosting sites	Low
<i>Corynorhinus townsendii pallascens</i>	Pale big-eared bat	--	SSC	BLM Sensitive	Group 2	Caves, mines, buildings; variety of habitats, arid and mesic	Low
<i>Nyctinomops femorosaccus</i>	Pocketed free-tailed bat	--	SSC		Group 2	Crevices in rocks, slopes, cliffs; lower elevations	Moderate foraging, no roosting
<i>Chaetodipus fallax pallidus</i>	pallid San Diego pocket mouse	--	SSC		Group 2	Chaparral, open, sandy areas	Low



Scientific Name	Common Name	Federal Status	State Status	BLM	County of San Diego	Habitat	Potential to Occur On-site
<b>Invertebrates</b>							
<i>Euphydryas editha quino</i>	Quino checkerspot butterfly	E	--		Group 1	Coastal sage scrub	Low

Status Codes:

State/Federal Status

BEGEPA = protected under the federal Bald Eagle and Golden Eagle Protection Act.

BLM Sensitive = species that may require federal T/E listing, or with small and widely dispersed populations, or inhabiting ecological refugia or unique habitats.

CFP = California Fully Protected species.

D = Delisted.

E = Endangered.

SSC = California Species of Special Concern.

T = Threatened.

County of San Diego Status

Group I = animal species that are listed as threatened or endangered or have very specific natural history requirements that must be met.

Group II = animal species that are becoming less common, but are not yet so rare that extirpation or extinction is imminent without immediate action.



## APPENDIX C

### SENSITIVE PLANT SPECIES POTENTIALLY OCCURRING WITHIN THE PROPOSED PROJECT SITE

<i>Scientific Name</i> <b>Common Name</b>	<b>State/ Federal Status</b>	<b>CNPS List</b>	<b>County of San Diego</b>	<b>Habitat/Blooming Period</b>	<b>Comments</b>
<i>Astragalus douglasii</i> var. <i>perstrictus</i> Jacumba milk-vetch	—/—	1B	Group A	Chaparral, cismontane woodland, valley and foothill grassland/rocky; blooms Apr-May.	Not expected to occur, as there is a lack of suitable habitat on-site.
<i>Astragalus magdalenae</i> var. <i>peirsonii</i> Peirson's milk-vetch	SE/FT	1B	Group A	Perennial herb; desert dunes; blooms Dec-Apr; elevation 180-820 ft.	Not expected to occur as project site is well out of species known elevation range.
<i>Ayenia compacta</i> Ayenia	—/—	4	Group B	Mojave desert scrub, Sonoran desert scrub/rocky.	Not observed. Not expected to occur, as habitat is not appropriate.
<i>Berberis fremontii</i> Fremont barberry	--/--	3	Group C	Chaparral, Joshua tree woodland, piñon and juniper woodland/rocky; blooms Apr-June.	Not observed. Not expected to occur, as this species would have been detected during survey. Furthermore, there is a lack of suitable habitat on-site.
<i>Bursera microphylla</i> Elephant tree	--/--	2	Group B	Deciduous tree; Sonoran Desert scrub (rocky); blooms June-July, elevation 656-2,296 feet.	Not observed. Not expected to occur, as this species would have been detected during the survey.
<i>Calliandra eriophylla</i> Fairyduster	--/--	2	Group B	Sonoran Desert scrub (sandy or rocky); blooms Mar-Apr.	Not observed. Not expected to occur, habitat is inappropriate.
<i>Caulanthus simulans</i> Payson's jewelflower	--/--	4.2	Group D	Annual herb; chaparral, coastal scrub on sandy, granitic substrate; blooms (Feb) Mar-May (June); elevation 295-7,282 ft.	Low to moderate potential to occur based on habitat preference; CNDDDB search did not show known occurrences within the vicinity of the project.
<i>Chamaesyce platysperma</i> Flat-seeded spurge	--/--	1B	Group A	Sonoran Desert (Coachella Valley) on sandy soils; blooms in May.	Low potential to occur. There is a known occurrence in Coachella valley, approximately 23 miles away from the project site directly. Widespread in southwest Arizona.
<i>Croton wigginsii</i> Wiggin's croton	--/--	2	n.a.	Sand dunes; blooms Mar-May.	Not observed. Not expected to occur, as habitat is not present on-site.



<b>Scientific Name Common Name</b>	<b>State/ Federal Status</b>	<b>CNPS List</b>	<b>County of San Diego</b>	<b>Habitat/Blooming Period</b>	<b>Comments</b>
<i>Cynanchum utahense</i> Utah vine milkweed	--/--	4.2	Group D	Perennial herb; Mojavean desert scrub, Sonoran desert scrub on sandy or gravelly substrate; blooms Apr-June, elevation 492-4,707 ft.	Low potential to occur based on habitat preferences; CNDDDB search did not show known occurrences within the vicinity of the project.
<i>Deinandra floribunda</i> Tecate tarplant	--/--	1B	Group A	Chaparral, coastal scrub; blooms Aug-Oct.	Not expected to occur on-site due to lack of suitable habitat.
<i>Delphinium parishii</i> ssp. <i>subglobosum</i> Colorado Desert larkspur	--/--	4.3	Group D	Perennial herb; Chaparral, cismontane woodland, pinyon and juniper woodland, Sonoran desert scrub; blooms Mar-June; elevation 1,968-5,904 ft.	Low potential to occur based on habitat preferences; CNDDDB search did not show known occurrences within the vicinity of the project.
<i>Dieteria asteroides</i> var. <i>lagunensis</i> Mount Laguna aster	--/--	2	n.a.	Cismontane woodland, lower montane coniferous forest; blooms Aug-Oct.	Not expected to occur on-site due to lack of suitable habitat.
<i>Eryngium aristulatum</i> ssp. <i>parishii</i> San Diego button-celery	SE/FE	1B	Group A	Annual/perennial herb; coastal scrub, valley and foothill grassland, vernal pools/mesic; blooms Apr-June; elevation 66-2,034 ft.	Low potential. Not observed on-site.
<i>Eucnide rupestris</i> (= <i>Hemizonia conjugens</i> ) Rock nettle	--/--	2	Group B	Sonoran Desert scrub; blooms Dec-Apr.	Not observed. Not expected to occur, as this habitat is marginal and would have been detected.
<i>Geraea viscida</i> Sticky geraea	--/--	2	Group B	Chaparral (often in disturbed areas); blooms May-June.	Not observed. Not expected to occur due to lack of suitable habitat
<i>Harpagonella palmeri</i> Palmer's grappling hook	--/--	4.2	Group D	Annual herb; Chaparral, coastal scrub, valley and foothill grassland on clay substrates; blooms Mar-May; elevation 65-3,132 ft.	Low potential to occur based on habitat preferences; CNDDDB search did not show known occurrences within the vicinity of the project.
<i>Helianthus niveus</i> Variegated dudleya	--/E	1B	n.a.	Open sandy places; blooms Sept-May.	Not observed. Not expected to occur, as this species would have been detected during survey.
<i>Herissantia crispa</i> Curly herissantia	--/--	2	Group B	Annual/perennial herb; Sonoran Desert scrub; blooms Apr (uncommon)/Aug-Sept; elevation 2,296-2,378 ft.	Low potential to occur. Suitable habitat does not occur on-site. The project site is out of the species' known elevation range.
<i>Heuchera brevistaminea</i> Laguna Mountains alumroot	--/--	1B	Group A	Riparian, chaparral, foothill woodland, mixed evergreen forest; blooms Apr-Jul/Sept. (uncommon).	Low potential. Not observed.



<i>Scientific Name</i> <b>Common Name</b>	<b>State/ Federal Status</b>	<b>CNPS List</b>	<b>County of San Diego</b>	<b>Habitat/Blooming Period</b>	<b>Comments</b>
<i>Hulsea californica</i> San Diego sunflower	--/	1B	Group A	Openings in yellow pine forest; blooms Apr-Jun.	Not observed. Not expected to occur due to lack of suitable habitat
<i>Hulsea mexicana</i> Mexican hulsea	--/--	2.3	Group B	Annual/perennial herb; chaparral (volcanic, often on burns or disturbed areas); blooms Apr-June; elevation 3,936 ft.	Low potential to occur based on habitat preferences; CNDDDB search did not show known occurrences within the vicinity of the project.
<i>Ipomopsis tenuifolia</i> Slender-leaved ipomopsis	--/--	2	Group B	Chaparral, piñon and juniper woodland, Sonoran Desert scrub/gravelly or rocky soils; blooms Mar-May.	Low potential. Habitat is marginal.
<i>Linanthus bellus</i> Desert beauty	--/--	2	Group B	Chaparral (sandy); blooms Apr-May.	Not observed. Not expected to occur, as habitat is not present.
<i>Lotus haydonii</i> Pygmy lotus	--/--	1B	Group A	Piñon and juniper woodland, Sonoran Desert scrub (rocky); blooms Mar-Jun.	Not observed. Not expected to occur, as this species would have been detected during surveys.
<i>Lupinus excubitus</i> var. <i>medius</i> Mountain Springs bush lupine	--/	1B	Group A	Piñon and juniper woodland, Sonoran Desert scrub; blooms Mar-Apr.	Not observed. Habitat is not present for this species.
<i>Mentzelia hirsutissima</i> Hairy stickleaf	--/--	2	Group B	Annual herb; Sonoran Desert scrub (rocky); blooms Apr-May; elevation 0-2,296 ft.	Not observed. Habitat is not present for this species.
<i>Mentzelia tridentata</i> Creamy blazing star	--/	1B	n.a.	Mojave Desert scrub/rocky, gravelly, sandy; blooms Apr-May.	Low potential to occur. Marginally suitable habitat does occur on-site.
<i>Mimulus aridus</i> low bush monkeyflower	--/--	4.3	Group D	Evergreen shrub; chaparral; blooms Apr-July; elevation 2,460-3,608 ft.	Not expected. Habitat is not present for this species. ; CNDDDB search did not show known occurrences within the vicinity of the project.
<i>Nemacaulis denudata</i> var. <i>gracilis</i> Slender woolly-heads	--/--	2	Group B	Dunes; coastal strand, creosote bush scrub; blooms Mar-May.	Not expected. Habitat is not present for this species.
<i>Opuntia munzii</i> Munz's cholla	--/--	1B	Group A	Stem succulent; Sonoran Desert, flats, hills, sandy to rocky soils; blooms in May; elevation 492-1,968 ft.	Not observed. Habitat is not present for this species. Would have been observed on-site.
<i>Penstemon thurberi</i> Thurber's beardtongue	--/--	4.2	Group D	Perennial herb; chaparral, Joshua tree woodland, pinyon and juniper woodland, Sonoran desert scrub; blooms May-July; elevation 3,936-4,002 ft.	Low potential to occur based on habitat preferences; CNDDDB search did not show known occurrences within the vicinity of the project.



<i>Scientific Name</i> <b>Common Name</b>	<b>State/ Federal Status</b>	<b>CNPS List</b>	<b>County of San Diego</b>	<b>Habitat/Blooming Period</b>	<b>Comments</b>
<i>Rhus trilobata</i> var. <i>simplicifolia</i> Single-leaved skunk bush	--/--	2.3	Group B	Deciduous shrub; pinyon and juniper woodland; blooms Mar-Apr; elevation 4,002-4,494 ft.	Not expected to occur. Would have been detected on-site if present. Also out of elevation range.
<i>Selaginella eremophila</i> Desert spikemoss	--/--	1B	Group B	Rhizomatous herb; Sonoran Desert scrub (gravelly or rocky); blooms June/May and July (uncommon); elevation 656-2,952 ft.	Low potential to occur. However, the project site is out of the species' known elevation range.
<i>Senecio aphanactis</i> Chaparral ragwort	--/--	2.2	Group B	Annual herb; chaparral, cismontane woodland; coastal scrub/sometimes alkaline; blooms Jan-Apr; elevation 49-2,624 ft.	Not expected to occur. Marginal habitat on-site, project is slightly out of the species' known elevation range.
<i>Senna covesii</i> Cove's cassia	--/--	2.2	Group B	Perennial herb; Sonoran desert scrub; blooms Mar-June; elevation 1,000-3,510 ft.	Low potential to occur based on habitat preference; CNDDDB search did not show known occurrences within the vicinity of the project.
<i>Tetrococcus dioicus</i> Parry's tetrococcus	--/--	1B	Group A	Chaparral, coastal scrub; blooms Apr-May.	Not observed. Not expected to occur due to lack of suitable habitat
<i>Texosporium sancti-jacobi</i> woven-spored lichen	ST/--	n.a.	n.a.	Lichen; organic matter and organic soil in sagebrush, old fenceposts, or other wood	Low to moderate potential.

## STATUS CODES

### State/Federal Status

FE = federally listed endangered  
 FT = Federally listed threatened  
 SE = State listed endangered  
 ST = State listed threatened  
 SR = State listed rare

### County of San Diego Status

Group A = Plants rare, threatened, or endangered in California and elsewhere.  
 Group B = Plants rare, threatened, or endangered in California but more common elsewhere.  
 Group C = Plants which may be quite rare, but need more information to determine true rarity status.  
 Group D = Plants limited in distribution and uncommon but not presently rare or endangered.

### California Native Plant Society Status

1A = Species presumed extinct.  
 1B = Species rare, threatened, or endangered in California and elsewhere. These species are eligible for state listing.  
 2 = Species rare, threatened, or endangered in California but more common elsewhere. These species are eligible for state listing.  
 3 = Species for which more information is needed. Distribution, endangerment, and/or taxonomic information is needed.  
 4 = A watch list of species of limited distribution. These species need to be monitored for changes in the status of their populations.



Appendix C.7 March 26, 2009 Comment Letter from USFWS: Comments on the NOI to  
Prepare an EIS; Energia Sierra Juarez U.S. Transmission, LLC









## United States Department of the Interior

### FISH AND WILDLIFE SERVICE

Ecological Services  
Carlsbad Fish and Wildlife Office  
6010 Hidden Valley Road, Suite 101  
Carlsbad, California 92011



In Reply Refer To:  
FWS-SDG-09B0210-09FA0023

**MAR 26 2009**

Dr. Jerry Pell  
Office of Electricity Delivery and Energy Reliability (OE-20)  
U.S. Department of Energy  
1000 Independence Avenue, S.W.  
Washington, DC 20585

Subject: Comments on the Notice of Intent to Prepare an Environmental Impact Statement;  
Energia Sierra Juarez U.S. Transmission, LLC

Dear Dr. Pell:

The U.S. Fish and Wildlife Service (Service) has reviewed the Department of Energy Notice of Intent (NOI) for the proposed action granting a Presidential Permit to Energia Sierra Juarez U.S. Transmission, LLC, to construct a new electric transmission line across the U.S.-Mexico border. The transmission line would involve the construction, operation, and maintenance of new transmission infrastructure in southeastern San Diego County, including land administered by the Bureau of Land Management (*e.g.*, Jacumba Wilderness Area and Roosevelt Reservation). The NOI presents two route alternatives, both within 1 mile of each other.

The proposed transmission line project was mentioned in the NEPA analysis for the Sunrise Powerlink as an interconnected project that would require a separate approval process. As such, the proposed project was not addressed under Endangered Species Act formal consultation for the Sunrise Powerlink project.

The following comments are provided for your use and information in preparing the environmental impact statement (EIS):

1. Based on our review of the NEPA documents for the Sunrise Powerlink project, it appears the proposed project may impact wildlife movement, including Peninsular bighorn sheep (PBS). This potential impact should be assessed in the EIS including a discussion of appropriate avoidance and minimization measures. Mitigation to offset unavoidable impacts should also be addressed in the context of the NEPA analysis.





2. PBS and Quino checkerspot butterfly (QCB) proposed and designated critical habitats are within or immediately adjacent to the proposed alternative alignments. Impacts to the species and critical habitat should be addressed, including increased non-native invasive plants, fire, etc. from the transmission line on the primary constituent elements of the critical habitats.
3. The EIS should include all the necessary information to accurately quantify the potential direct and indirect impacts of each project component on listed species (*e.g.*, PBS and QCB) and their habitats. A series of maps should be included that depict the locations of project features, such as towers, permanent and temporary access roads, and staging areas. These maps, at a minimum, should also include vegetation types, known occurrences of listed species, suitable habitat for listed species, and proximity of project alignments to designated and proposed critical habitats. The information requested above should be based on up to date habitat assessments and species surveys in the project area.
4. The federally-listed PBS and QCB are known to occur within or near the project area; therefore, consultation under section 7 of the Endangered Species Act may be required.

Thank you for the opportunity to comment on this project.

Sincerely,



Karen A. Goebel  
Assistant Field Supervisor

cc:

USFWS, Pacific Southwest Region  
Vijai N. Rai, OEPC  
Regional Environmental Officer, OAK  
BCPA (ERT)



Appendix C.8 February 23, 2010, Letter from DOE to USFWS: Initiation of Informal  
Consultation under Section 7 of the Endangered Species Act









Department of Energy  
Washington, DC 20585

23 February 2010

Ms. Karen Goebel  
Assistant Field Supervisor  
Carlsbad Fish & Wildlife Office  
U.S. Fish & Wildlife Service  
6010 Hidden Valley Road, Suite 101  
Carlsbad, California 92011

**Subject: Energía Sierra Juarez (ESJ-US) Transmission Line Project; Initiation of Informal Consultation Under §7 of the Endangered Species Act pursuant to 50 CFR 402.08, and Designation of Non-Federal Representative**

Dear Ms. Goebel:

Energía Sierra Juarez U.S. Transmission, LLC (ESJ-US), proposes to construct and operate the ESJ U.S. Transmission Line, an electric transmission line project that would cross the U.S./Mexico border in the southeast corner of San Diego County, approximately 4 miles (6.4 km) east of Jacumba, California.

ESJ-US would construct either a double-circuit 230-kilovolt (kV) or a single-circuit 500-kV electric transmission line which would ultimately connect up to 1,250 megawatts (MW) of energy from renewable energy generators to be located in the general vicinity of La Rumorosa, Northern Baja California, Mexico (Ejido Jacume), with the Imperial Valley-Miguel segment of the Southwest Powerlink (SWPL) 500-kV transmission line. The proposed transmission line would have a total length of approximately 1.65 miles (2.65 km), including both the U.S. and Mexican portions of the line. The U.S. portion of the proposed line would be constructed on up to either five lattice towers or five steel monopoles over a distance of approximately 0.65 miles (1 km). San Diego Gas and Electric Company (SDG&E) would provide the interconnection to the U.S. transmission grid system for the ESJ U.S. Transmission Line project at its proposed East County (ECO) Substation. Project location maps are attached, and a great deal of additional project information is available on the Web site for the preparation of the DOE environmental impact statement (EIS) for the project pursuant to the National Environmental Policy Act at <http://esjprojecteis.org>.

Executive Order (E.O.) 10485 (September 9, 1953), as amended by E.O. 12038 (February 7, 1978) and 10 CFR §205.320 *et seq* (2000), requires that a Presidential permit be issued by the U.S. Department of Energy (DOE) before electric transmission facilities may be constructed, operated, maintained, or connected at the U.S. international border. On December 18, 2007, Baja



Wind U.S. Transmission, LLC (now known as ESJ-US), a subsidiary of Sempra Generation (Sempra), applied to DOE for a Presidential permit in accordance with the above regulations. The Presidential permit (OE Docket Number PP-334), if issued, would authorize ESJ-US to construct, operate, maintain, and connect the ESJ U.S. Transmission Line to the electrical grid.

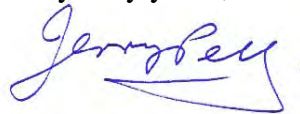
In this permitting capacity, DOE serves as the "Action Agency" with responsibility for consulting with the U.S. Fish and Wildlife Service pursuant to Section 7(a)(2) of the Endangered Species Act. Accordingly, this letter is intended to advise the Service that we are designating ENTRIX, Inc., our EIS-preparation consultant, as the non-federal representative for purposes of engaging in informal consultation with the Service pursuant to 50 CFR 402.08, including preparation of a biological assessment as appropriate.

We have been given to understand that representatives of the U.S. Bureau of Land Management and the California Public Utilities Commission may have been in recent contact with Ms. Jessie Bennett of your office regarding the proposed ECO Substation project, the proposed ESJ-US Project as it pertains to the ECO Substation, and the proposed Iberdrola Renewable's Tule Wind Project. You may wish to consider designating Ms. Bennett as the Service's point-of-contact for our purposes as well.

Finally, we respectfully request from the Service an updated species list for the Action Area pursuant to 50 CFR 402.12(e). Please provide this material to Mr. Rick Williams of ENTRIX at [rwilliams@entrix.com](mailto:rwilliams@entrix.com). He may also be reached at 916-386-3816.

Thank you very much for your kind consideration. If you have any questions, or would like to discuss this further, please feel free to contact me at 202-586-3362 or at [Jerry.Pell@hq.doe.gov](mailto:Jerry.Pell@hq.doe.gov).

Very truly yours,

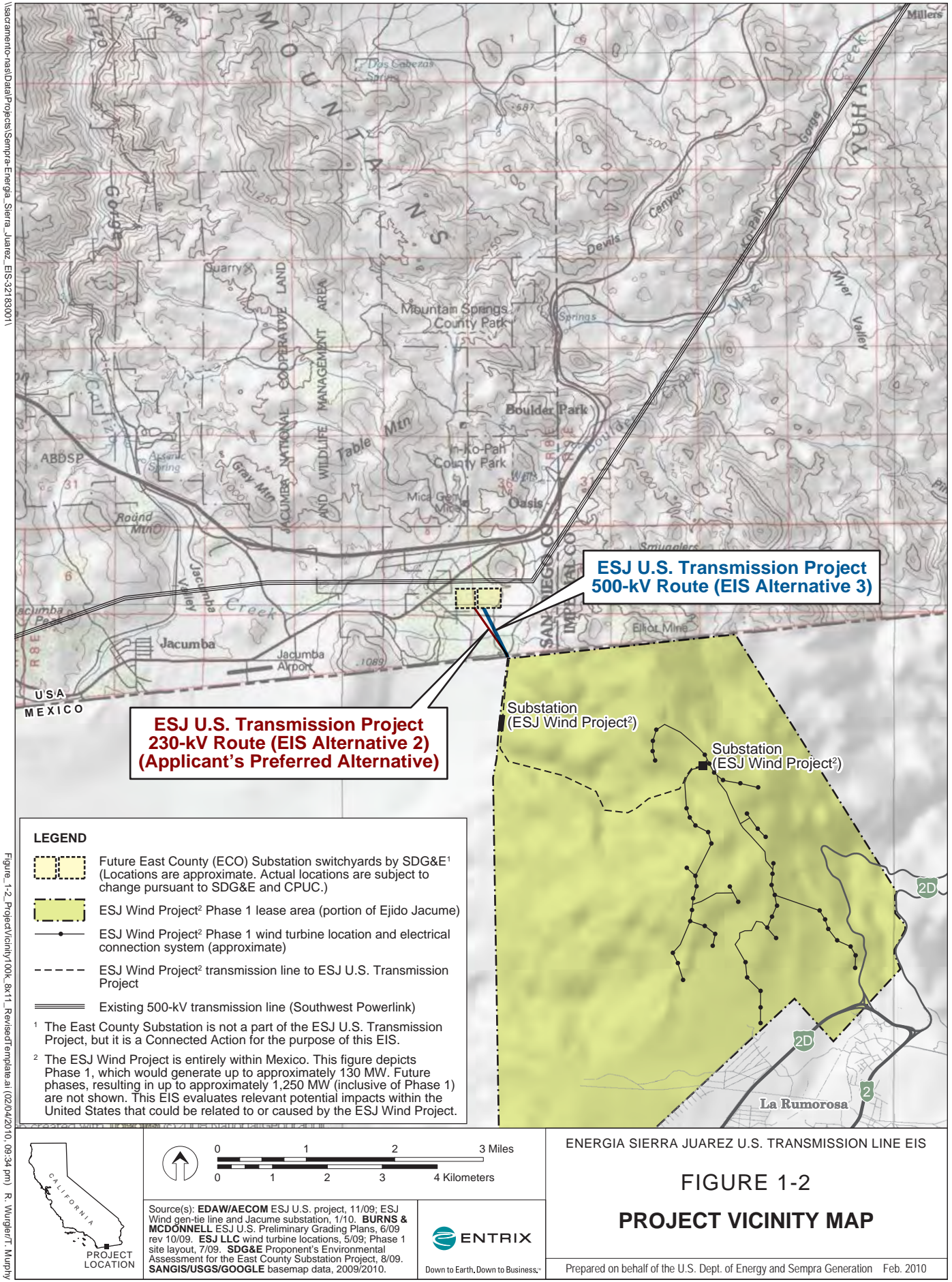
A handwritten signature in blue ink, appearing to read "Jerry Pell", with a stylized flourish underneath.

Jerry Pell, PhD, CCM  
Principal NEPA Document Manager  
Permitting, Siting, and Analysis (OE-20)  
Office of Electricity Delivery and  
Energy Restoration

attachments

cc:Entrix

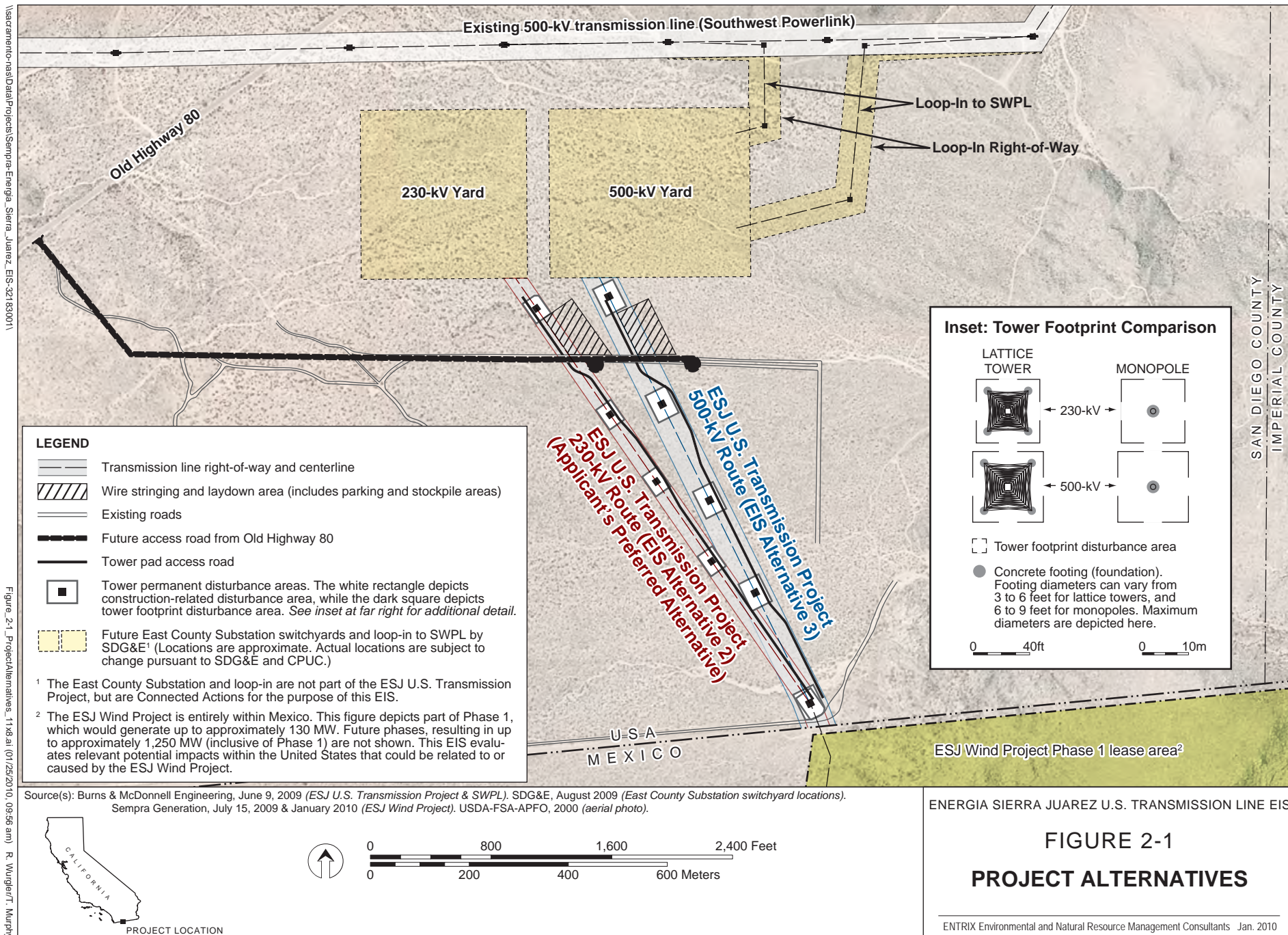




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Appendix C.9 March 24, 2010, Letter from USFWS: Request for Informal Section 7  
Consultation on the Proposed Energia Sierra Juarez Transmission Line









# United States Department of the Interior

## FISH AND WILDLIFE SERVICE

Ecological Services  
Carlsbad Fish and Wildlife Office  
6010 Hidden Valley Road, Suite 101  
Carlsbad, California 92011



In Reply Refer To:  
FWS-SDG-10B0231-I0SL0439

MAR 24 2010

Mr. Rick Williams  
ENTRIX  
Senior Consultant/Manager-Terrestrial Biology  
701 University Avenue, Suite 200  
Sacramento, California 95825

Subject: Request for Informal Section 7 Consultation on the Proposed Energia Sierra Juarez Transmission Line, San Diego County, California

Dear Mr. Williams:

This letter is in response to the inquiry dated and received February 23, 2010, concerning federally endangered, threatened, proposed and candidate species that occur or may occur near or within the project area for the proposed Energia Sierra Juarez Transmission Line, San Diego County, California. The Department of Energy has designated ENTRIX as the non-Federal representative for section 7 consultation under the Endangered Species Act of 1973 (Act), as amended (16 U.S.C. 1531 *et seq.*).

The proposed project involves the construction of either a double-circuit 230-kilovolt (kV) or a single-circuit 500-kV electric transmission line that would ultimately connect up to 1,250 megawatts of energy from renewable energy generators. The renewable energy generators would be located in the general vicinity of La Rumorosa, Northern Baja California, Mexico and connect to the Imperial Valley-Miguel segment of the Southwest Powerlink (SWPL) 500-kV transmission line. The proposed transmission line would have a total length of about 1.65 miles (2.65 kilometers), including both the United States and Mexican portions of the line. The United States portion of the proposed line would be constructed on up to either five lattice towers or five steel monopoles over a distance of about 0.62 miles (one kilometer). San Diego Gas and Electric is expected to provide for interconnection at the proposed East County Substation. To assist you in evaluating the potential occurrence of these species within the area of interest, we are providing the enclosed list.

Based on information currently available to us, the federally endangered Quino checkerspot butterfly (*Euphydryas editha quino*) occurs within the general region and could occur within your project area. We recommend completing a habitat assessment and/or survey for this species, as





appropriate, in accordance with our Quino Checkerspot Butterfly Survey Protocol<sup>1</sup>. In addition, we recommend that project proponents seek assistance from a biologist familiar with the habitat conditions and associated species in and around the project site to assess the potential for direct, indirect and cumulative impacts to other federally listed species on the enclosed list. We are available to help develop specific design criteria to avoid or minimize effects to federally listed species, as necessary.

Should you have any questions regarding the species list provided, or your responsibilities under the Act, please contact Jesse Bennett of my staff at (760) 431-9440 ext 305.

Sincerely,

A handwritten signature in black ink, reading "Karen A. Goebel". The signature is written in a cursive, flowing style.

Karen A. Goebel  
Assistant Field Supervisor

Enclosure

cc:

Jerry Pell, Department of Energy

---

<sup>1</sup> USFWS (U.S. Fish and Wildlife Service). 2002. Quino checkerspot butterfly survey protocol. 6 pp.+Appendix



**Federally Listed, Proposed and Candidate Species  
That Occur or May Occur in the Vicinity of the Proposed Energia Sierra Juarez  
Transmission Line  
San Diego County, California**

Common Name	Scientific Name	Status	Critical Habitat in Project Area?
<u>INVERTEBRATES</u>			
Quino checkerspot butterfly	<i>Euphydryas editha quino</i>	E (CH)	No
<u>AMPHIBIANS</u>			
arroyo toad	<i>Bufo</i> (=Anaxyrus) <i>californicus</i>	E (CH, PCH)	No
<u>BIRDS</u>			
southwestern willow flycatcher	<i>Empidonax traillii extimus</i>	E (CH)	No
California condor	<i>Gymnogyps californianus</i>	E (CH)	No
least Bell's vireo	<i>Vireo bellii pusillus</i>	E (CH)	No

---

E: Endangered    T: Threatened    CH: Critical habitat designated  
PCH: Critical habitat proposed







Appendix C.10 March 8, 2011, Letter from DOE to USFWS: Conclusion of Informal  
Consultation Under §7 of the Endangered Species Act pursuant to 50 CFR  
402.08









Department of Energy  
Washington, DC 20585

8 March 2011

Mr. Jesse Bennett  
Fish and Wildlife Biologist  
Carlsbad Fish and Wildlife Office  
U.S. Fish and Wildlife Service  
6010 Hidden Valley Road, Suite 101  
Carlsbad, California 92011

**Subject: Energía Sierra Juarez Transmission Line Project; Conclusion of Informal Consultation Under §7 of the Endangered Species Act pursuant to 50 CFR 402.08**

Dear Mr. Bennett:

As you know, the Department of Energy (DOE) is the lead federal agency for issuance of a Presidential permit to Energia Sierra Juarez U.S. Transmission, LLC (ESJ) for their proposed Energia Sierra Juarez Transmission Line Project (ESJ Project), proposed to be located in southeastern San Diego County. DOE's 23 February 2010 letter to Ms. Karen Goebel of the Fish and Wildlife Service (FWS) provided project information, and indicated that ENTRIX, Inc. (now Cardno ENTRIX), is DOE's designated non-federal representative for this project.

The following sets forth the essence of our informal Endangered Species Act (ESA) telephone consultation with you on 25 August 2010 regarding the ESJ Project, and requests concurrence from FWS that informal consultation is complete and no further consultation is planned pursuant to §7 of the ESA:

**RECORD OF 25 AUGUST 2010 CONFERENCE CALL**

**Teleconference Participants**

The following persons participated in the 25 August 2010 conference call:

- Mr. Jesse Bennett, Fish and Wildlife Biologist, FWS Carlsbad Office
- Dr. Jerry Pell, Principal NEPA Document Manager; Permitting, Siting, and Analysis (OE-20); Office of Electricity Delivery and Reliability, DOE
- Mr. Richard Williams, Cardno ENTRIX (consultant to DOE and designated non-federal representative for DOE/FWS consultation)
- Mr. Tim Murphy, Cardno ENTRIX (consultant to DOE)



## Potential Effects on Federally Listed Species

With respect to the ESJ transmission line in the U.S., FWS staff indicated that there are sufficient data to support a determination of “no effect” for the listed species identified in the 24 March 2010 letter from the Service to DOE, as follows:

- Regarding the federally-listed endangered Quino checkerspot butterfly (QCB; *Euphydryas editha quino*), FWS recognizes that the ESJ Project transmission line is located approximately 3.6 miles (5.8 km) east of the nearest designated critical habitat for QCB; as such, the proposed ESJ Project would not result in the destruction or adverse modification of such habitat. In addition, neither QCB nor the species larval host plants were observed during recent protocol surveys in the ESJ Project area, although nectar sites for butterflies were identified throughout the survey area.
- With regard to the federally-listed endangered Peninsular bighorn sheep (PBS; *Ovis Canadensis nelsoni*), FWS recognizes that the ESJ transmission line would be located approximately 2.3 miles (3.7 km) southwest of the nearest designated critical habitat for PBS; as a result, the proposed ESJ Project would not result in the destruction or adverse modification of such habitat. The ESJ Project area includes some of the key foraging habitat requirements (e.g., valley bottoms and washes) identified as primary constituent elements for bighorn sheep recovery, and there are anecdotal reports of sheep occurrences in the Project vicinity<sup>1</sup>. Hence the Project would result in the permanent loss of a small amount of potential foraging habitat for the species within the Project footprint. This habitat loss represents a very small portion of the foraging habitat available to bighorn sheep in the region, and is not likely to adversely affect the sheep population. However, interested parties have expressed concern about the potential for the Project to create a barrier to sheep movement and result in habitat fragmentation. There are limited empirical data pertaining to bighorn sheep avoidance of transmission lines. The FWS, in its Certificate of Right-of-Way Compatibility<sup>2</sup> issued to Southern California Edison for the Devers-Palo Verde No. 1 500 kV transmission line, stated that *Data currently available do not indicate any discernable impact on movement of bighorn sheep across the existing single transmission line ROW*. This finding suggests that the ESJ transmission line by itself would not serve as a deterrent to sheep movement through the area following construction.

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<sup>1</sup> Boulevard Planning Group, comments on DOE/EIS-0414: DEIS for Sempra Generation's Energia Sierra Juarez Presidential Permit Application (PPA-334), 1 November 2010.

<sup>2</sup> U.S. Fish and Wildlife Service, Certificate of Right-of-Way Compatibility, Kofa National Wildlife Refuge, 1 March 1989.



- With respect to other federally-listed threatened or endangered species that were listed in the FWS letter of 24 March 2010, the Project site lacks suitable riparian and woodland habitat for arroyo toad (*Bufo californicus*), southwestern willow flycatcher (*Empidonax traillii extimus*), and least Bell's vireo (*Vireo bellii pusillus*); therefore, these species are considered to have a low potential to occur onsite, and construction and operation of the ESJ Project is expected to have no effect on these species. The Project site is also within the range of the California condor (*Gymnogyps californianus*); however, this species is considered to have a very low probability of occurring in the Project area based on limited distribution within its historic range and the absence of recent sightings in the ESJ Project vicinity (with the exception of a 2007 sighting near Jacumba). Moreover, the design of the transmission line would conform to current standards for avian protection to negate the potential for condor electrocution. Therefore, construction and operation of the ESJ Project is not expected to adversely affect California condors.

### **Transboundary Impacts**

With respect to transboundary (cross-border) impacts, FWS explained that their policy is to not assess impacts that could occur in foreign nations resulting from actions in the U.S. Subsequent to our 25 August 2010 teleconference call, FWS provided to DOE a copy of an 11 January 2005 letter from FWS to the U.S. Bureau of Reclamation related to the All-American Canal Lining Project. The letter describes FWS policy on cross-border impacts and explains why FWS does not attempt to assess impacts that occur in foreign nations resulting from actions in the U.S.

### **CONCLUSION OF INFORMAL CONSULTATION**

In terms of concluding the informal consultation process, FWS indicated that informal consultation is now considered closed, but that the Carlsbad office typically does not issue concurrence letters for projects that have "no effect" under ESA §7. Be that as it may, we would very much appreciate receiving written concurrence for inclusion in the Final EIS in order to substantiate that we have performed due diligence in this important matter. However, absent such a letter of concurrence or other written response from FWS, the default assumption will be that FWS is comfortable with DOE's determination that the ESJ Project would have "no effect" on federally-listed species.

You may wish to note that this letter and any written material received from the Service in response will be posted on the Project NEPA Web site (<http://esjprojecteis.org>) and included in the Final EIS, as appropriate.

Thank you very much for your valuable assistance with our NEPA process for the ESJ Project. Please feel free to contact me at any time by e-mail (preferred) at [Jerry.Pell@hq.doe.gov](mailto:Jerry.Pell@hq.doe.gov), or by phone at 202-586-3362. You or your staff may also contact Richard Williams of Cardno ENTRIX by e-mail at [Richard.Williams@cardno.com](mailto:Richard.Williams@cardno.com), or by phone at 916-386-3816.



Very truly yours,

A handwritten signature in blue ink, appearing to read "Jerry Pell", with a stylized flourish at the end.

Jerry Pell, PhD, CCM  
Principal NEPA Document Manager  
Permitting, Siting, and Analysis (OE-20)  
Office of Electricity Delivery and Reliability

encl: January 11, 2005 letter from the Service to U.S. Bureau of Reclamation.

cc: Richard Williams, Cardno ENTRIX  
Tim Murphy, Cardno ENTRIX





# United States Department of the Interior

## FISH AND WILDLIFE SERVICE

California/Nevada Operations Office  
2800 Cottage Way, Room W-2606  
Sacramento, California 95825-1846



In Reply Refer to:  
FWS-IMP-4265.4

JAN 11 2005

### Memorandum

To: Regional Director, Lower Colorado Region  
Bureau of Reclamation, Boulder City, Nevada

From: <sup>Acting</sup> Manager, California-Nevada Operations Office  
Fish and Wildlife Service, Sacramento, California

Subject: Endangered Species Act Considerations in Mexico for the All-American Canal Lining Project

Thank you for your memorandum of November 18, 2005, and attached Biological Analysis (BA), describing the potential effects of lining the All-American Canal to threatened and endangered species in Mexico. The Fish and Wildlife Service (Service), through section 7 of the Endangered Species Act (Act), is currently consulting with your Agency to address the effects to threatened and endangered species within the United States.

Because your request regarding potential transboundary effects raises issues that could arise in many geographic locations and contexts, we have coordinated this response through our regional and Washington offices. With respect to your request for guidance on the most appropriate process to address concerns regarding potential effects of the Canal Lining Project in the Republic of Mexico, neither section 7 of the ESA, nor the section 7 consultation and analysis process under the ESA's implementing regulations addresses species outside the borders of the United States. Nothing in the plain language of section 7 indicates that it applies to transboundary effects. We note that Congress explained the necessity for the ESA, in part, because of the need to protect species "in the United States," 16 U.S.C. § 1539(1)(3). While the footprint of the All-American Canal project rests entirely within the United States and, therefore, is subject to section 7 consultation, the consideration of all potential indirect effects of the Canal Lining Project would require an examination of potential effects that occur on the Mexican side of the border. From a practical point of view, reviewing effects in foreign lands is difficult, at best, and sometimes impossible: foreign powers may not grant access to allow the necessary surveying or observation needed to assess any effects.

Further, because critical habitat is not designated in foreign countries, section 7's prohibition against adverse modification or destruction of critical habitat does not apply. Finally, we note that the take prohibitions contained in section 9 of the ESA do not apply within the territory of foreign countries.

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**IN AMERICA**



Therefore, an incidental take statement and any reasonable and prudent measures developed through section 7 consultation would not contain measures related to those effects inside Mexico. Noting the domestic orientation of the section 7 process, including the intentional effort in the consultation regulations to avoid interference with the sovereignty of foreign nations, it would be inappropriate to include an examination of transboundary indirect effects as part of this consultation. Given all these considerations, the section 7 consultation for All-American Canal project does not address potential effects of the Canal Lining Project in Mexico.

Moreover, our conclusion regarding the plain language of the ESA found in section 7 should be contrasted with the express provisions of the ESA found in section 8 that addresses "International Cooperation." In light of the fact that FWS does not have the unilateral authority to protect species that are present in foreign nations, section 8 of the Act deals with ESA issues beyond the borders of the United States through the mechanisms of financial assistance, encouragement of foreign programs, and "research abroad." Specifically, under section 8 of the Act, with appropriate consultation through the Secretary of State, the Secretary of the Interior has the ability to assist in conservation efforts for listed species outside the U.S. Given this statutory direction, we would be interested in working with you and our Mexican counterparts to address cross-border habitat and species conservation issues, including efforts to address concerns that arise as a result of the Canal Lining Project.

The Service has reviewed the information provided by Reclamation regarding extra-territorial effects of the All-American Canal Lining project on federally listed species utilizing the Andrade Mesa Toe Wetlands (AMTW). The BA describes effects of the Project on two listed species, the federally endangered Yuma clapper rail (*Rallus longirostris yumanensis*) and endangered southwestern willow flycatcher (*Empidonax traillii extimus*). We do not have site specific information from Mexico that would add to your analysis, and we concur that the BA captures the probable range of effects to these two species in the United States. We concur with your determination that the project is not likely to adversely affect the southwestern willow flycatcher given that the species' use of the AMTW is apparently by a few transient individuals, and is limited to a vegetation community that is likely to be affected minimally by the decrease in water level as described in the information provided.

For the Yuma clapper rail, some marsh habitat could be lost as a result of the project. The AMTW contain 525.4 acres of marsh, which consist of open water, cattail (*Typha* spp.), and salt grass (*Distichlis spicata*) vegetation associations. The AMTW marsh habitat would be expected to be impacted by the Project. However, because the degree to which the AMTW marshes are sustained by seepage from the AAC is unknown, the potential effect of lining the AAC on the AMTW marshes is difficult to determine. There may be a contribution of water to the wetlands from the remaining unlined section of the AAC or adjacent farmlands. Groundwater levels in the vicinity of the AMTW are expected to decline by less than 1 meter over 10 years as a result of the project (Mexican Delegation 2005). Based on this expected groundwater decline, surface water elevations in the AMTW could similarly decline by up to 1 meter over 10 years. Emergent vegetation is expected to follow the declining surface water elevations. If the marshes are greater than one meter in depth, then some emergent vegetation would remain. However, Reclamation did not have, and therefore could not provide, information on the water depth of the existing marshes. The Sonoran Institute recently prepared a report on the potential effects of the AAC Lining Project and estimated that 502.3 acres of marsh habitat would be lost (consisting of 58.5 acres of open water, 130 acres of salt grass, and 313.8 acres of cattail; Arroyo et al. 2005).



Any impacts to approximately 502 acres of marsh (including 314 acres of emergent vegetation) are significant in the Colorado River delta region, which was presumed to have historically supported large areas of marsh before development. While the AMTW marshes are apparently artificially formed and maintained, their presence is nevertheless important for various species of wildlife, including the Yuma clapper rail. As a result, the Yuma clapper rail estimated population of 172 birds (based on the detection of 16 individuals in call surveys; Hinojosa-Huerta et al. 2004a) in the AMTW could be impacted. This number of Yuma clapper rails would represent a small fraction of the entire United States and Mexico population. For example, when compared to the largest distinct Yuma clapper rail population in Mexico for which data is available, located in the Cienega de Santa Clara, the number of birds potentially affected by the AAC Lining Project would represent less than 3 to 4 percent of the Cienega de Santa Clara population. Estimates of the population at the Cienega de Santa Clara (based on call counts) have ranged up to 6,629 in 2001 (Hinojosa-Huerta et al. 2001). The estimate for 2004 was 4,000 individuals (Hinojosa-Huerta et al. 2004b).

The changes in water level are expected to occur slowly (i.e., decline by less than 1 meter over 10 years as a result of the Project; Mexican Delegation 2005). This gradual change will allow migration of the emergent vegetation with these changes in water level, and intra-season water level changes are expected to be minimal (approximately 2 inches across the course of a single breeding season). Changes of this magnitude are not expected to result in direct harm to individual Yuma clapper rail adults or abandonment of nests resulting in the loss of chicks. Such gradual changes are more likely to result in movement of adults out of the impacted area prior to nesting if the water levels in individual ponded areas become too shallow to support the appropriate vegetative structure and/or prey abundance.

There will be an overall net loss of up to approximately 314 acres of habitat for the Yuma clapper rail in the Colorado River Delta/Salton Basin region. The actual amount could be substantially less if seepage from the area between Drops 3 and 4 and/or existing agriculture adjacent to the AMTW contribute substantial volumes of water to the shallow groundwater supporting the AMTW. An estimate of Yuma clapper rail habitat in the United States compiled by the Service exceeds 10,000 acres (data from National Wildlife Refuge files, Arizona Game and Fish Department and California Department of Fish and Game; compiled by Lesley Fitzpatrick, Arizona Ecological Services Office, USFWS). An estimate also has been developed for habitat in Mexico, and that estimate exceeds 15,000 acres (Hinojosa-Huerta et al. 2003). It is important to consider the potential loss of 314 acres or less of Yuma clapper rail habitat in this context. Given the species apparent abilities to disperse some distance (the Laughlin Bay and Las Vegas Wash locations are on the order of 80 miles from other areas known to be occupied by Yuma clapper rails), rails occupying the AMTW are likely to move to other habitat as the conditions slowly degrade. Habitat exists within an 80 mile radius at the Sonny Bono Salton Sea National Wildlife Refuge, the Imperial Wildlife Area, State and Federal lands along the lower Colorado River, and at the Cienega de Santa Clara.

Primary conservation actions that would aid in the conservation of the Yuma clapper rail include preservation of breeding and wintering habitats, and the water that supports those habitats in the U.S. and Mexico. As part of this process, the Service would like to work with your office on ways to maintain or replace flows that currently support the Cienega de Santa Clara. As habitat for the largest known population of Yuma clapper rails in Mexico, maintaining this habitat will be a key action in the conservation of the species in Mexico. Selenium contamination may be an issue in the Cienega's



wetlands. Further examination of this situation, and assistance in management of the selenium, if appropriate, could increase the productivity of the clapper rails using the Cienaga de Santa Clara. The Service also recommends that we jointly work with Mexico to identify other opportunities to create or enhance clapper rail habitat in Mexico utilizing stable water sources. One opportunity may include the use of effluent from the planned Mexicali II treatment plant. Provided the water quality of the effluent is appropriate, it may be possible to create habitat with these flows that is able to support Yuma clapper rails and at the same time improve the quality of the discharge downstream. The Environmental Protection Agency is a co-sponsor of that project and may be able to facilitate such enhancements.

If you have any questions, please feel free to contact Jim Bartel, Field Supervisor at our Carlsbad Office, at 760-431-9440.



## References Cited

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- Hinojosa-Huerta, O., H. Iturribarria-Rojas, Y. Carrillo-Guerrero, M. de la Garza-Trevino, and E. Zamora-Hernandez. 2004b. Bird Conservation Plan for the Colorado River Delta. Pronatura Noroeste, Direccion de Conservacion Sonora. San Luis Rio de Colorado, Sonora, Mexico.
- Mexican Delegation to the All-American Canal Meeting. 2005. Presentation entitled "Effects in Mexico of the Lining of the All-American Canal (AAC)," at the Department of the Interior, Washington, D.C. April 19.



